JUGONNATH SUNKERSETT
PRESENTATION.

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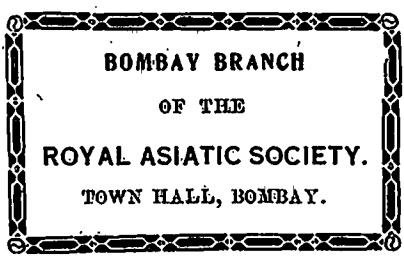

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS; PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

55390

"..... VIRESQUE ACQUIRIT EUNDO." *Virg.*

VOL. XVI.

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SILENE acaulis.

Moss Campion.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* swelling, of one leaf. *Petals* 5, with claws. *Caps.* superior, imperfectly 3-celled, bursting at the summit. *Seeds* many.

SPEC. CHAR. Leaves linear, ciliated at the base. Stalks solitary, single-flowered. Petals crowned.

SYN. Silene acaulis. *Linn. Sp. Pl.* 603. *Sm. Fl. Brit.* 472. *Lightf.* 227. *t.* 12. *f.* 1. *With.* 416. *Hull.* 98. *Dicks. H. Sicc. fasc.* 1. 8.

Cucubalus acaulis. *Huds.* 187.

Lychnis alpina minima. *Raii Syn.* 341.

A NATIVE of the higher parts of the most alpine mountains of Britain, where its elegant blossoms appear in June and July, and its ripe capsules in August. Our specimens were collected on Snowdon, July 12th last, by Mr. D. Turner. We have been favoured with others from several friends in Scotland.

The root is perennial, running deep into the fissures of rocks, and branching at its crown into many short, leafy, prostrate, subdivided stems, which form thick mossy tufts. Leaves crowded, spreading, linear, acute, more or less ciliated, especially towards their base, which is extended into a sheathing, dilated foot-stalk; their colour is a bright green. From the summit of each short branch of the stem arises one elegant rose-coloured flower, on a simple, smooth, naked stalk, which is at first very short, but as the fruit ripens becomes often an inch and half long. The calyx is mostly purple in the upper part. Petals slightly notched, minutely crowned at their base, as we have often had an opportunity of observing. Capsule cylindrical, lengthened out as it ripens, as in the genus *Cerastium*.

From the above description it appears that the term *acaulis* is not strictly applicable to this plant, but rather alludes to its appearance at first sight.

680.

Spergula subulata.

Oct.r 1. 1802. Published by Jas. Sowerby, London.

SPERGULA subulata.

Ciliated Awl-shaped Spurrey.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, undivided. *Capsule* superior, ovate, of 1 cell and 5 valves.

SPEC. CHAR. Leaves opposite, awl-shaped, fringed, tipped with a bristly point. Flower-stalks solitary, very long, somewhat hairy.

SYN. Spergula subulata. *Sm. Fl. Brit.* 505. *With.* 436. *Hull.* 102. *Swartz. Act. Holm. ann.* 1789. 45. *t.* 1. *f.* 3.

S. laricina. *Huds.* 203. *Lightf.* 244.

S. saginoides. *Curt. Lond. fasc.* 4. *t.* 35.

Sagina procumbens β. *Linn. Sp. Pl.* 185.

Saxifraga graminea pusilla, foliis brevioribus crassioribus et succulentioribus. *Raii Syn.* 345.

IT appears from original authorities that Linnæus confounded this plant with *Sagina procumbens*; hence it is not to be found properly characterized in any of his own publications.—Mr. Hudson, led by the specific character of *Spergula laricina*, mistook it for that species, how erroneously may be seen by the *Plant. Ic. ex Herb. Linn. t.* 18. Dr. Swartz and Professor Willdenow have at length properly defined it.

This species grows on sandy barren heaths, flowering from June to August. Mr. W. Borrer favoured us with specimens. The root is fibrous and perennial. Stems several, spreading, and taking root, leafy, smooth, or rarely a little pubescent. Leaves opposite, joined at the base, linear, tapering to a point, tipped with a little bristle, and fringed with glandular hairs, by which two last marks this is certainly distinguished from *S. saginoides*, a plant otherwise greatly resembling it, but much more rare. Flower-stalks terminal or axillary, solitary, long, more or less clothed with glutinous, short hairs, as is likewise the calyx. Petals obovate, obtuse, entire, white, the length of the calyx. Stamina most generally 5, sometimes 10. Capsule ovate, scarcely exceeding the calyx in length, bursting into 5 valves. Seeds minute, kidney-shaped, compressed, pale-brown, encircled with a black line, but not with a dilated membranous margin.

681.

Asarum europæum.

Oct.ʳ 1 1801 Published by Jas Sowerby London

ASARUM europæum.

Asarabacca.

DODECANDRIA Monogynia.

GEN. CHAR. *Cal.* 3-cleft, standing on the germen. *Cor.* none. *Stam.* 12. *Caps.* coriaceous, of 6 cells, crowned with the calyx. *Stigma* in 6 segments.

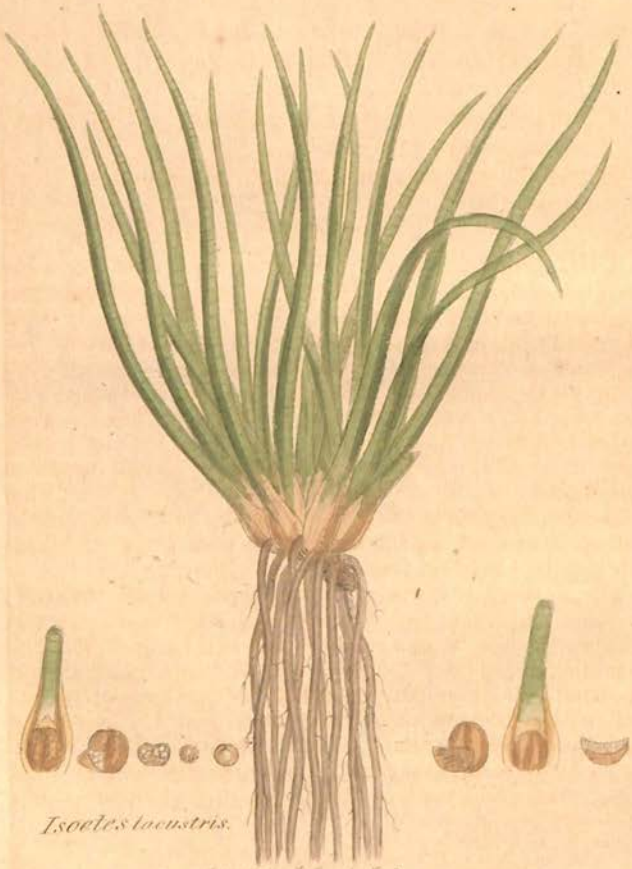
SPEC. CHAR. Leaves two, kidney-shaped, obtuse.

SYN. Asarum europæum. *Linn. Sp. Pl.* 633. *Sm. Fl. Brit.* 509. *Huds.* 205. *With.* 440. *Hull.* 104. *Woodv. Med. Bot. t.* 86. *Dicks. Dr. Pl.* 7.
Asarum. *Raii Syn.* 158.

WE are indebted to the Rev. Charles Abbot, D.D. for wild specimens of this very rare plant, gathered by himself this summer, by the road side, between Henley and Maidenhead. It has heretofore been remarked principally in Lancashire and its borders.

The Asarabacca grows naturally in shady situations, and is perennial, flowering in May. The root consists of many branched fibres, and has a strong pungent smell, somewhat resembling pepper and ginger. The stems are very short and perfectly simple, bearing a pair only of dark-green, shining, kidney-shaped, entire, veiny leaves, on long, downy foot-stalks. Flower solitary, terminal, drooping, on a short, downy stalk, and consisting of a downy, dull-purple, pitcher-shaped calyx, cut into three lobes, and crowning a roundish germen, which becomes a leathery capsule, containing six seeds in as many cells. The stamina, which are singularly beaked, and the 6-cleft stigma, are concealed in the bottom of the calyx, and like it in colour.

The leaves have a pungent smell, different from that of the root, and their powder is used in medicine to promote sneezing. The root is said to be emetic. In natural affinities and qualities this plant comes near *Aristolochia.*



Isoetes lacustris.

Published by J. Sowerby, London.

ISOETES lacustris.

Quillwort.

CRYPTOGAMIA Filices.

GEN. CHAR. Male within the base of the inner leaves. *Anthera* solitary, standing on a heart-shaped receptacle.

Female within the base of the outer leaves. *Germen* standing on a heart-shaped receptacle. *Capsule* membranous. *Seeds* many, angular, rough.

SPEC. CHAR. Fronds awl-shaped semicylindrical. Capsules roundish, of two cells. Seeds granulated all over.

SYN. Isoetes lacustris. *Linn. Sp. Pl.* 1563. *Huds.* 462. *With.* 760. *Hull.* 245. *Lightf.* 683. *Bolt. Fil.* 74. *t.* 41.

Calamaria folio breviore et crassiore. *Dill. Musc.* 540. *t.* 80. *f.* 1.

Subularia vulgaris erecta, folio rigidissimo. *Raii Syn.* 306.

QUILLWORT is only found under water about the margins of the most alpine British lakes, where it bears its fructification early in summer. We have received it from Mr. G. Donn, and from our late much esteemed friend Mr. J. Mackay. The root is perennial, tuberous, throwing out many long, simple fibres. Each plant consists of many simple, awl-shaped, semicylindrical, smooth fronds or leaves, rather spreading, and often recurved at the tip. Internally they are longitudinally divided into four cells, and furnished with numerous, transverse *septa*. Their base is somewhat dilated, and bordered with a membrane, and the fructification is situated on the inner side, the inner row of leaves being male, the outer female.

The anthera and germen each stands on an inversely heart-shaped receptacle. The capsule, when ripe, is nearly as large as a pea, immersed in the base of the fronds, thin and membranous, divided into two cells, and containing numerous, small, white seeds, covered with minute granulations.

The longer-leaved plants, represented in Dillenius's second figure, though described by the accurate Dr. Richardson as being remarkably brittle, and different in some other respects from the common kind, are now considered as a mere variety.

Pterogonium gracile.

PTEROGONIUM gracile.

Slender Pterogonium.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of 16 linear, upright teeth. *Flowers* lateral. *Veil* often hairy.

SPEC. CHAR. Stems creeping, clustered. Branches cylindrical, curved. Leaves imbricated, ovate, minutely toothed. Capsules oblong, nearly erect.

SYN. Pterogonium gracile. *Swartz. Musc. Suec.* 26.
Pterigynandrum gracile. *Hedw. Sp. Musc.* 80. *Crypt. v.* 4. 16. *t.* 6.
Hypnum gracile. *Linn. Mant.* 310. *Lightf.* 766. *With.* 860. *Hull.* 272.
H. ornithopoides. *Huds.* 508.
H. gracile ornithopodioides. *Dill. Musc.* 320. *t.* 41. *f.* 55.

THIS moss is peculiar to mountainous countries. We have nowhere seen it in greater abundance than in the neighbourhood of Edinburgh, where it forms great patches on rocks or trees, but the fructification has rarely been observed in Britain, though common in France and Italy. Mr. D. Turner found the plant in that state in Ireland this summer; and it must be considered as a very fortunate acquisition, as it serves to confirm Hedwig's observations respecting this new genus *Pterogonium*; for the hairy *calyptra* or veil has been observed by him in some Pennsylvanian species, though he had not seen it in this, probably because the hairs fall off very early, which we find to be the case. This mark and the want of an inner fringe are sufficient to keep *Pterogonium* separate from *Hypnum*.

The present species is known by its slender cylindrical branches, curved inward (especially when dry), thickly clothed with broad, acute, serrulated, nerveless leaves. The fruit-stalks spring from a lateral, scaly bulb. The capsule is a little curved. The veil cylindrical, and very slender.

Mr. Dickson's *Hypnum Smithii* belongs to this genus.

Jungermannia dilatata

Oct.r 1. 1802. Published by Jas Sowerby London

JUNGERMANNIA tamariscifolia.

Tamarisk Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.

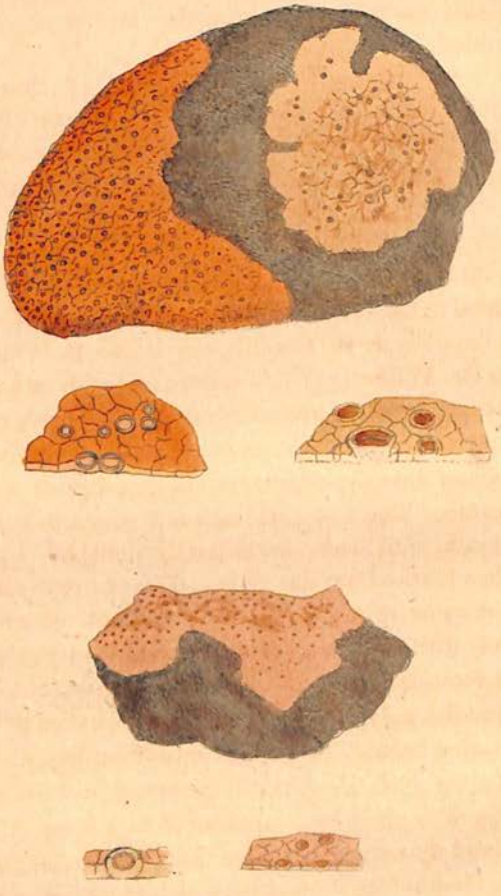
Capsule on a stalk rising from a sheath, of 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Fronds procumbent, much branched, spreading. Leaves roundish, obtuse, convex, with auricles of the same form, and cloven stipulæ.

SYN. Jungermannia tamariscifolia. *Linn. Sp. Pl.* 1600. *Huds.* 514. *With.* 879. *Hull.* 280. *Relh.* 394. *Sibth.* 311. *Abbot.* 253.

Lichenastrum imbricatum, Tamarisci Narbonensis facie. *Dill. Musc.* 499. *t.* 72. *f.* 31.

COMMON on moist rocks and the stems of trees, which it clothes in large flat brown patches, easily stripped off. The fronds are closely imbricated, rather zigzag, subdivided into numerous short divaricated branches, all closely covered with small, convex, shining, two-ranked, roundish, entire leaves, green when young, but soon becoming of a mahogany brown. Each of these bears underneath a small auricle of its own figure, and adjoining to it on the main stem is a small cloven scale or stipula, for the knowledge of whose true form and nature we are obliged to the Rev. Mr. Francis. The capsules appear in March on short stalks, each from a terminal, inflated, lobed, granulated sheath. These capsules are of a paler and redder brown than in most other species, and from that circumstance are easily discernible on the dark leaves; but they do not very often occur.



Urceolaria Acharii.

Nov.r 1. 1802 Published by Ja.s Sowerby London

LICHEN Acharii.

Acharian Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust smooth, a little cracked, pale brick-coloured. Shields sunk in the crust, reddish.

SYN. Lichen Acharii. *Achar. Prod.* 33. *cum ic.*
L. lacustris. *With. v.* 4. 21. *t.* 31. *f.* 4. *Hull.* 290.

FOR various specimens of this little-known Lichen we are indebted to the Rev. Mr. Harriman, and Mr. Oliver. It was first found by J. W. Griffith, esq. in North Wales, who sent it to Dr. Withering; and is only met with on such granite stones, or rocks, as are occasionally inundated, as about the bed of the Tees, and shores of alpine lakes, having in its most common state the appearance of an ochraceous deposit of the water. The crust, though not very thick, is firm, hard, smooth, and even, as if partly polished, becoming more or less cracked by age. The colour is a pale yellowish brown; in some specimens, which seem not otherwise distinct, dirty white. The shields are small, pretty numerous, variously scattered, sunk in the crust, concave, of a deeper or more reddish colour than the crust, surrounded at first by a pale elevated border, which afterwards disappears. In this advanced state of *L. Acharii*, we know not how to convey a better idea of it than by comparing it to a wash of water-colour mixed up with a large portion of gum, or size, the numerous air-bubbles formed by which seem, by subsiding, to have left minute depressions scattered over the surface, and these depressions are the shields.

1088

2241.

Borrera chrysophthalma?

Nov.1. 1802 Published by Jas Sowerby, London

LICHEN chrysophthalmus.

Golden-eyed Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

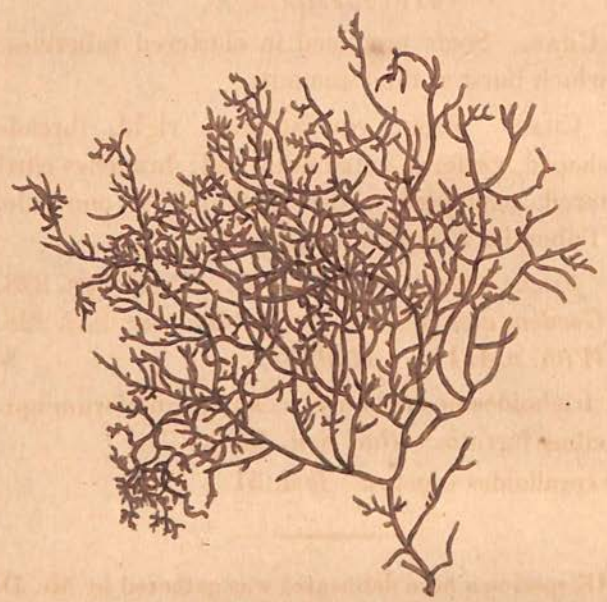
SPEC. CHAR. Leafy, branched, upright, yellowish-grey, linear, toothed and fringed. Shields orange-coloured, radiated.

SYN. Lichen chrysophthalmus. *Linn. Mant.* 311. *Achar. Prod.* 181. *Dicks. Dr. Pl.* 21.

L. pulmonarius, minimus, subluteus, receptaculis florum coronatis, mali aurantii coloris. *Mich. Gen.* 75. *t.* 36. *f.* 4. *Dill. Musc.* 74. *t.* 13. *f.* 17?

Platisma armatum. *Hoffm. Pl. Lich. t.* 36. *f.* 1.

A POOR fisherman from whom Mr. Sowerby has often received shells and other natural productions from the West of England, last year brought him specimens of this Lichen from the branches of apple-trees in Devonshire. No person has before observed it in Britain; but we make no scruple to admit it on this authority, as it may have been overlooked among the varieties of *L. parietinus* growing on trees; to which however it has no other affinity than the colour of its shields, being of the same natural size as *L. Prunastri*, &c. Its singular beauty when examined cannot fail to attract admiration. The linear, branched fronds are seldom an inch high, elegantly laciniated and fringed, pale grey, more or less tinged with yellow. Shields numerous, terminal, rather concave, of a rich orange-colour, surrounded with a fringed border of the colour of the leaf. Hoffmann's *P. denudatum*, *t.* 31. *f.* 1. is only a variety without the fringe. Micheli first found this Lichen on pear-trees at Florence, and Dillenius merely copies his name and figure. It grows in the South of France, and at the Cape of Good Hope.



Gigartina plicata?

Nov.1 1802 Published by J.d Sowerby London

FUCUS plicatus.

Matted Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond cartilaginous, rigid, thread-shaped, uniform, much branched; branches clustered, entangled, rather inclining to one side. Tubercles lateral, and terminal.

SYN. Fucus plicatus. *Huds.* 589. *Turn. Syn.* 323. *Gooden. and Woodw. Tr. of Linn. Soc. v.* 3. 228. *With. v.* 4. 114. *Hull.* 327.

F. trichoides nostras aurei coloris, ramulorum apicibus furcatis. *Raii Syn.* 45.

F. coralloides erectus. *Ibid.* 51.

THE specimen here delineated was gathered by Mr. D. Turner on the rocks at Sheringham, Norfolk: see his *Synopsis*, page 328. On the sea-shore this Fucus is frequently cast up, and consists of thick, matted, wiry tufts, varying from deep brownish purple to pale pink, yellow, or a waxy white; to the latter perhaps it is reduced by the action of the air and light. The root, with which we have been hitherto unacquainted, is a small expanded disk. Fronds numerous, much branched, in a singularly irregular and clustered manner; all the branches of each cluster mostly leaning one way: the whole frond and branches are thread-shaped, and nearly of an equal thickness throughout. Fructification of numerous, small, dark, prominent tubercles, scattered over the branches, and often terminating them.

Sinapis muralis.

Nov.r 1. 1802. Published by Jas. Sowerby, London.

SISYMBRIUM murale.

Sand Rocket.

TETRADNAMIA Siliquosa.

GEN. CHAR. *Pod* cylindrical, bursting with nearly straight valves. *Cal.* and *Cor.* spreading.

SPEC. CHAR. Pods erect. Leaves lanceolate, deeply serrated. Stem spreading, roughish.

SYN. Sisymbrium murale. *Linn. Sp. Pl.* 918. *Willden. v. 3.* 496. *Dicks. Dr. Pl.* 12.

FOR this new addition to the catalogue of British plants we are obliged to Mr. Dillwyn, who found it in 1801, growing plentifully throughout the Isle of Thanet, particularly about Ramsgate. It thrives well on barren sand and rubbish, but in richer or moister places becomes so much more luxuriant as scarcely to be known: in its most starved state only it answers to the Linnæan character *subacaule*. It flowers throughout the autumn, and ripens seed in great plenty.

Having for many years observed this species in a garden, we can speak with certainty to its distinguishing characters. The root is truly annual, in which it differs from *S. tenuifolium* and *monense*. Stems branching, but often very short, leafy, round, more or less rough with deflexed hairs. Leaves of a broad lanceolate figure, tapering at the base into a long footstalk; their margin deeply and irregularly serrated, but not pinnatifid; their colour lightish green, not glaucous. Long racemose stalks terminate the stem and branches, bearing several yellow flowers, which are smaller and rather paler than those of the two species above mentioned. The pods are long, slender, and erect. Some hairs are often found on the general and partial flower-stalks, and (more sparingly) on the leaves.

We presume this plant may have been overlooked as a variety of *S. tenuifolium*, see *t.* 525, but they are without doubt quite distinct.

Geranium nodosum.

Nov.ᵗ 1 1802 Published by Jaˢ Sowerby London

GERANIUM nodosum.

Knotty Crane's-bill.

MONADELPHIA Decandria.

GEN. CHAR. *Cal.* 5-leaved. *Pet.* 5, regular. *Nectary* 5 glands. *Fruit* beaked, separating into 5 capsules, each tipped with a long, recurved, naked awn.

SPEC. CHAR. Stalks 2-flowered. Leaves opposite, 3-lobed, serrated. Capsules even, hairy all over.

SYN. Geranium nodosum. *Linn. Sp. Pl.* 953. *Sm. Fl. Brit.* 730. *Huds.* 301. *With.* 601. *Hull.* 152. G. quintum nodosum Plateau. *Raii Syn.* 361.

WHETHER this Crane's-bill were really to be found wild in Britain has been doubted by many botanists, for many have certainly sought in vain. The mountainous parts of Cumberland alone have been mentioned as producing it. Our specimen was gathered the middle of last June, in rather a hilly situation between Hatfield and Welwyn, Hertfordshire, by the Rev. Dr. Abbot. There is little probability of its having escaped from gardens; for the plant, though elegant, is scarcely cultivated except by botanists.

The root is perennial, creeping, somewhat tuberous. Stems a foot and half high, red and shining, swelled below the joints. Leaves opposite, stalked, shining, serrated, divided into three sharp lobes. Flowers large, purple, streaked with red, standing in pairs on long, red, axillary or terminal stalks. Bracteæ linear, acute, red. Calyx-leaves elliptical, each tipped with a short red awn. Stamina and claws of the petals fringed. Antheræ ten, all perfect. Stigmas red. Capsules elliptical, scarcely keeled, destitute of all inequalities or wrinkles, and clothed with short soft hairs.

1092.

970.

Malva rotundifolia.

MALVA rotundifolia.

Dwarf Mallow.

MONADELPHIA Polyandria.

GEN. CHAR. *Cal.* double; the outermost of 3 leaves. *Capsules* numerous, circularly arranged. *Seeds* solitary.

SPEC. CHAR. Stems prostrate. Leaves roundish-heart-shaped, five-lobed. Fruit-stalks bent downward.

SYN. Malva rotundifolia. *Linn. Sp. Pl.* 969. *Sm. Fl. Brit.* 741. *Huds.* 307. *With.* 612. *Hull.* 155. *Relh.* 271. *Sibth.* 215. *Abbot.* 151. *Curt. Lond. fasc. 3. t.* 43.

M. sylvestris minor. *Raii Syn.* 251.

COMMON in waste ground, by the sides of roads and foot-paths, flowering copiously from June to September.

The root is annual, whitish, spindle-shaped, branched, abounding with mucilage like that of *M. sylvestris*. Stems several, prostrate and divaricated, not much branched, clothed with numerous, roundish, downy, crenate leaves, plaited and cut into five or seven lobes, heart-shaped at the base, and standing on long hairy foot-stalks. Flowers on shorter stalks, which grow several together from the bosom of each leaf, and which are clothed, as well as the calyx, with soft hairs. Corolla twice the length of the calyx, each segment notched, the whole of a pale purple or lilac hue. Capsules wrinkled.

We now presume our *M. pusilla*, *v.* 4. *t.* 241, to be only a variety of this species.

Hieracium
Pilosella.

HIERACIUM Pilosella.

Mouse-ear Hawkweed.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* nearly naked, dotted. *Cal.* imbricated, ovate. *Down* simple, sessile.

SPEC. CHAR. Leaves elliptical, entire, downy beneath. Scions creeping. Stalk simple, leafless.

SYN. Hieracium Pilosella. *Linn. Sp. Pl.* 1125. *Sm. Fl. Brit.* 828. *Huds.* 343. *With.* 682. *Hull.* 175. *Relh.* 308. *Sibth.* 241. *Abbot.* 170. *Curt. Lond. fasc.* 4. *t.* 54.

Pilosella repens. *Raii Syn.* 170.

FEW plants are more common than the *Hieracium Pilosella* in dry exposed places, such as gravelly banks, sunny lawns, and the tops of park walls, where it blossoms from May to the end of July, presenting its elegant sulphur-coloured flowers to the noontide sun, while the surrounding herbage, and even its own foliage, is withered and burnt up.

The roots are perennial, creeping by means of leafy scions protruded from their crown. Leaves spreading, elliptical, entire, of a smooth, but not polished, green above, sprinkled with rigid hairs that become tawny when dried; underneath the leaves are clothed with a dense white coat of down, intermixed also with hairs. Stalks one, two, or three from the crown of the root, erect, simple, round, hairy, destitute of leaves, except now and then a small bractea, and each bearing one flower whose calyx is rough with black hairs intermingled with white. The florets are narrow, toothed at the end, pale yellow above, remarkable for being elegantly striped with red beneath. Receptacle rough with short bristles. Seeds brown, striated, crowned with rough rigid down.

1094
1091.

Hieracium paludosum.

Nov.r 1 1802 Published by Ja.s Sowerby London

HIERACIUM paludosum.

Succory-leaved Hawkweed.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* nearly naked, dotted. *Cal.* imbricated, ovate. *Down* simple, sessile.

SPEC. CHAR. Stem panicled, hollow. Leaves toothed, smooth, embracing the stem with their heart-shaped base. Calyx rough.

SYN. Hieracium paludosum. *Linn. Sp. Pl.* 1129. *Sm. Fl. Brit.* 831. *Huds.* 345. *With.* 686. *Hull.* 176. *Lightf.* 438.

H. montanum cichorei folio nostras. *Raii Syn.* 166.

WILD specimens of the plant here delineated were sent from North Wales by Mr. Turner, and from Yorkshire by Mr. Hailstone, in July and August last. It is generally esteemed a rare species, and indeed is only to be found in our most mountainous counties, where it delights in moist shady places. We have formerly seen it cultivated with success even in a smoky London garden for several years; and it is remarkable that some of the most alpine plants, as *Angelica Archangelica*, thrive best in such an atmosphere.

The root is perennial, formed of many downy fibres. Herb smooth, intensely bitter. Stem angular, leafy, hollow, panicled above but simple in the lower part, leafy. Leaves alternate, somewhat elliptical, toothed, sharp-pointed, clasping the stem with their heart-shaped base. Panicle corymbose, spreading, furnished with a few small ciliated bracteæ. Calyx rough with black prominent hairs. Corolla bright full yellow. Receptacle naked. Seed pale-brown. Down rough.

Nov.1 1811. Published by J.C. Sowerby London.

LEMNA minor.

Lesser Duck-weed.

MONOECIA Diandria.

GEN. CHAR. Male, *Cal.* of 1 leaf. *Cor.* none. Female, *Cal.* of 1 leaf. *Cor.* none. *Style* 1. *Caps.* with several seeds.

SPEC. CHAR. Leaves sessile, nearly flat on both sides. Roots solitary.

SYN. Lemna minor. *Linn. Sp. Pl.* 1376. *Sm. Fl. Brit.* 957. *Huds.* 399. *With.* 44. *Hull.* 202. *Relh.* 359. *Sibth.* 14. *Abbot.* 198.
Lens palustris. *Raii Syn.* 129. *t.* 4. *f.* 1.

ANOTHER *Lemna* in fructification (see *L. trisulca*, *v.* 13. *t.* 926.) has been fortunately communicated to us by Mr. W. Borrer. This species is very common in stagnant pools, floating on the surface; but its flowers, though described by some foreign writers, have not till now been noticed in Britain. They are produced in the middle of summer, after which season the plant decays, and as it is acknowledged to be an annual, they must be constantly produced; unless the herb may be propagated by fragments of itself sinking to the bottom of the water, rooting in the mud, and in due time forming leaves, which become buoyant by means of the air generated in their cells. However this may be, we are persuaded the long solitary fibrous roots, tipped with a sheath as in other species, are of temporary use, and do not themselves form offsets.

The leaves are elliptical, and somewhat proliferous as in *L. trisulca*, but much smaller and more succulent, entire at their margin, slightly convex beneath, of a pale green in every part. Flowers from a marginal chink, always, as it appears to us, hermaphrodite, and having a two-valved calyx (or perhaps corolla) much more evident than in *L. trisulca*; so that probably the generic character may hereafter be altered with advantage if the remaining species agree with this.

1253.

Carex divisa.

Nov.1 1802 Publish'd by Jas Sowerby London

CAREX divisa.

Bracteated Marsh Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Spike once or twice compounded; spikelets all androgynous. Bractea leafy, erect. Fruit not spreading. Root creeping.

SYN. Carex divisa. *Huds.* 405. *Sm. Fl. Brit.* 973. *Gooden. Tr. of Linn. Soc. v.* 2. 157. *t.* 19. *f.* 2. *With.* 92. *Hull.* 205.

Gramen cyperoides ex monte Ballon, spicâ divulsâ. *Raii Syn.* 423.

THIS rare Carex was gathered at Kennington by Mr. Groult, a very accurate observer. It grows in marshy places, flowering in May and June, and is most likely to be found not very far from the sea, or at least within the reach of the freshwater tide.

Root perennial, creeping horizontally to a considerable extent, black, strong and twisted. Stems upright, weak, above a foot high, naked, triangular, roughish in the upper part. Leaves bright green, narrow, erect, various in length. Spike scarcely an inch long, ovate, compound, sometimes subdivided at the base, dense and compressed, of a brown, not reddish, hue. Spikelets several, irregularly clustered, ovate, all androgynous, the female flowers undermost and most numerous. A long narrow leafy triangular acute bractea stands under the lowest spikelet, generally rising much above the uppermost. Glumes elliptical, sharp, brown with a pale or greenish keel and a slightly membranous edge. Fruit shorter than the glumes, ovate, with a rough dilated margin, cloven at the point. Stamina three. Stigmas two, brown, very long and slender.

Carex muricata.

April 1 1802 Published by Jas Sowerby London

CAREX muricata.

Greater Prickly Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Spike oblong, once or twice compounded, prickly; spikelets androgynous. Fruit divaricated, pointed, cloven. Root fibrous.

SYN. Carex muricata. *Linn. Sp. Pl.* 1382. *Sm. Fl. Brit.* 974. *Gooden. Tr. of Linn. Soc. v.* 2. 158. *With.* 92. *Hull.* 205. *Relh.* 364.

C. spicata. *Huds.* 405. *Sibth.* 27. *Abbot.* 201. *Lightf.* 548.

Gramen cyperoides spicatum minus. *Raii Syn.* 424.

FREQUENT in rather moist pastures and shady places, flowering in May or June.

The root is perennial, fibrous, scarcely creeping. The herbage of a bright green. Stem upright and straight, 12 or 18 inches high, naked except at the base, triangular, the angles rough upwards. Leaves flattish, narrow, taller than the stem, rough on the edges and keel. Spike oblong, an inch or more in length, cylindrical, blunt; a little interrupted and (though rarely) sometimes branched at the base. Spikelets various in number, roundish, rather crowded, the male flowers above the female. Bracteæ ovate, membranous, the lowest especially tipped with a narrow rough leafy point. Glumes ovate, brown with a green keel. Fruit spreading every way, ovate, convex on one side, green, at length brown, rough at the margin towards the top, deeply cloven at the point. Stigmas two.

By a comparison with *t.* 806 it will be seen in what particulars this differs from *C. muricata* of Hudson, our *stellulata.*

Nov.1 1802 Published by Ja.s Sowerby London

CAREX depauperata.

Starved Wood Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Sheaths much shorter than the flower-stalk. Female spikes distant, erect, of but few flowers. Fruit inflated, beaked.

SYN. Carex depauperata. *Gooden. Tr. of Linn. Soc. v.* 2. 181. *Sm. Fl. Brit.* 984. *With.* 102. *Hull.* 207.

C. ventricosa. *Curt. Lond. fasc.* 6. *t.* 68.

C. triflora. *Willden. Phyt. fasc.* 1. 2. *t.* 1. *f.* 2.

Cyperoides vesicarium humile, locustis rarioribus. *Tourn. Inst.* 530.

THE name of *depauperata*, first given to this Carex, and retained by Dr. Goodenough, is so much more apt than *ventricosa*, that we are astonished Mr. Curtis should have changed it for the latter, which is equally suitable to many others of the genus. See *Fl. Lond.*

C. depauperata, though known to Tournefort, as appears by his herbarium, and figured in Micheli, *t.* 32. *f.* 5, was neglected by recent botanists till Dr. Goodenough found it in Charlton wood, from whence our specimen was taken in the middle of last July. The root is perennial and fibrous. Stem a foot and half high, slender, smooth, bluntly triangular, bearing a few long-sheathed distant leaves, the 3 or 4 uppermost of which become bracteæ, and their sheaths closely enfold the slender upright stalks of the female spikes, sometimes for a third part of their length, sometimes for more than half. Each of these spikes consists of about 3 (rarely more or less) florets, with ovate or obovate smooth glumes. The male spike is solitary, terminal and erect. Fruit inflated, ribbed, smooth, with a long slightly notched beak. Stigmas 3. Seed triangular, obtuse, of a shining brown. This species comes next to *C. sylvatica*, *v.* 14, *t.* 995, in character and habit.

Carex praecox.

Dec.1 1801 Published by Jas Sowerby London

CAREX præcox.

Vernal Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

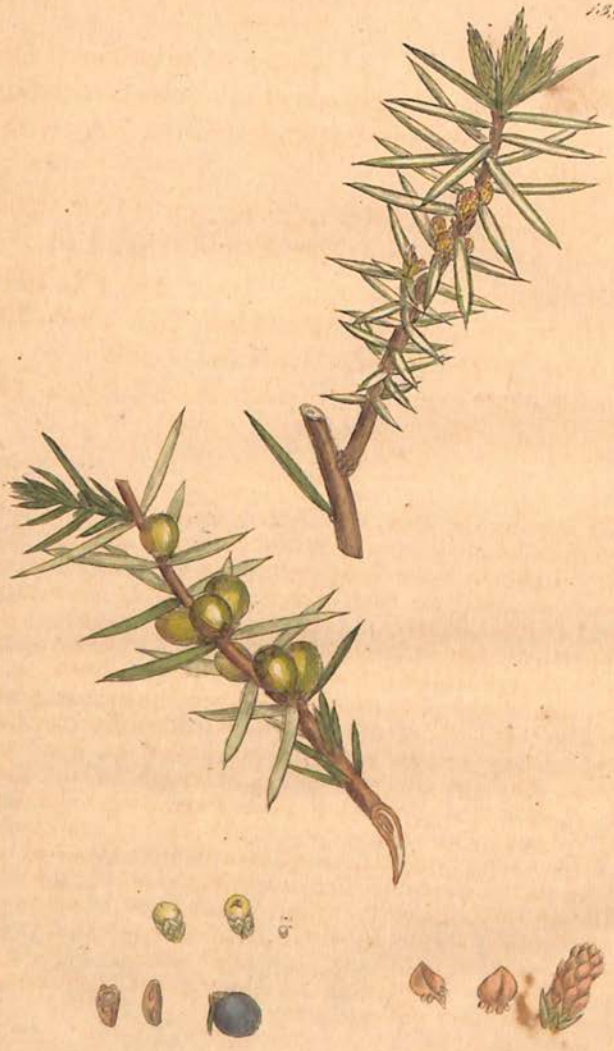
SPEC. CHAR. Sheaths short, nearly equal to the flower-stalk. Spikes ovate, rather clustered. Glumes tipped with a small point. Fruit roundish, downy.

SYN. Carex præcox. *Sm. Fl. Brit.* 994. *Gooden. Tr. of Linn. Soc. v.* 2. 170. *With.* 97. *Hull.* 206. *Relh.* 367. *Sibth.* 29. *Abbot.* 205.
C. saxatilis. *Huds.* 408.
Gramen cyperoides vernum minimum. *Raii Syn.* 421.

DRY pastures, heaths, and exposed situations abound with this Carex, which is rendered conspicuous in the spring by its numerous tufted yellow antheræ. It is the earliest of its genus, in this country as well as in Germany. The name of *præcox* was first given, we believe, by the celebrated Professor Schreber, for Linnæus never determined this species, and our British botanists erroneously considered it as either the *saxatilis* or *montana* of the illustrious Swede.

Its perennial root creeps, and branches out into several leafy tufts. The stem ascends obliquely to the height of from 3 to 6 inches, and is firm, triangular, smooth and naked. Leaves radical, short, rigid, acute, recurved, roughish, especially at the edges. Bracteæ erect, often wanting; their sheaths short, dilated upwards. Male spike obovate, and rather obtuse, especially when the antheræ are not expanded. Glumes elliptical or ovate, those of the female florets more particularly pointed. Female spikes about two, erect, near together, on shortish stalks. Fruit roundish, or somewhat pear-shaped, downy, green tipped with brown, scarcely so long as the glumes. Stigmas three. Seed whitish, triangular.

1100



Juniperus communis.

Dec.ʳ 1. 1802. Published by Jas. Sowerby, London.

JUNIPERUS communis.

Common Juniper.

DIOECIA Monadelphia.

GEN. CHAR. Male, *Cal.* scales of a catkin. *Cor.* none. *Stam.* 3. Female, *Cal.* scales of a catkin, fewer, at length pulpy, united into a *berry* with 3 *seeds*.

SPEC. CHAR. Leaves three together, spreading, tipped with a spine, and longer than the ripe fruit.

SYN. Juniperus communis. *Linn. Sp. Pl.* 1470. *Huds.* 436. *With.* 599. *Hull.* 222. *Relh.* 392. *Sibth.* 210. *Woodv. Med. Bot. t.* 95.

J. vulgaris, baccis parvis purpureis. *Raii Syn.* 444.

β. J. alpina. *Raii Syn.* 444.

SENT us by the Rev. Dr. Abbot from Juniper-hill between Middleton-stony and Oxford early in June last. This shrub delights in open hilly spots on a limestone soil, and grows abundantly in such places, though by no means a general British plant.

The strong woody intricate stems and branches spread widely, and are clothed with smooth, pungent, linear, evergreen, spreading leaves, glaucous on their upper side, placed three together in alternate parcels. Catkins dioecious, axillary, solitary, sessile, small, accompanied by imbricated bracteæ. Antheræ crested, yellow, at length brown. Berry globose, dark purple with a glaucous tinge, sweetish; formed of the confluent scales of the female catkin, and containing three oblong, angular seeds, to which are attached little vesicles full of the same turpentine-like essential oil which is diffused throughout the whole shrub, and which is procured from the berries by distillation, for medicinal purposes.—The alpine variety β (for we can scarcely believe it a species) is more humble in its growth, and has broader leaves with rather oblong berries.

1101

1654.

Tortula subulata.

Dec.1 1802 Published by J.& J. Sowerby London

TORTULA subulata.
Awl-shaped Tortula.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of numerous capillary teeth, spirally and repeatedly twisted together.

SPEC. CHAR. Stem nearly simple, short. Leaves ovato-lanceolate, bearded, entire. Capsule cylindrical. Lid awl-shaped.

SYN. Tortula subulata. *Hedw. Sp. Musc.* 122. *t.* 27. *Swartz. Musc. Suec.* 39. *Sibth.* 284.

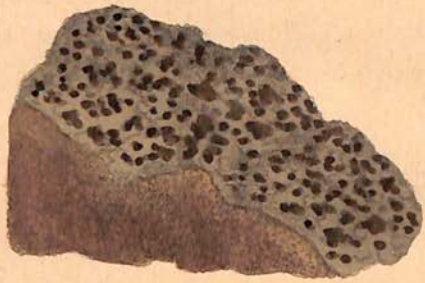
Bryum subulatum. *Linn. Sp. Pl.* 1581. *Huds.* 476. *With.* 832. *Hull.* 263. *Relh.* 423. *Abbot.* 242. *Curt. Lond. fasc.* 3. *t.* 66. *Dicks. H. Sicc. fasc.* 14. 19.

B. capsulis longis subulatis. *Dill. Musc.* 350. *t.* 45. *f.* 10.

B. erectis longis et acutis falcatis capitulis, calyptra subfusca, foliis serpylli pellucidis. *Raii Syn.* 92.

THOUGH common here in damp shady places, Dr. Swartz informs me this moss is very rare in Sweden, and indeed I have observed it to be, as Lightfoot says, rather unfrequent in Scotland. Its fruit ripens in March and April, and the roots seem to be annual.

The plants form dense tufts, easily discoverable by the broad rosaceous entire leaves, of a bright green colour, of which the lowermost are smallest, the rest most ovate, all furnished with a central rib, and tipped with a short beard or bristly point. Fruit-stalk an inch high, tawny red, bearing a long, cylindrical, slender, upright capsule, which becomes slightly curved, and of a brown colour, in ripening. The veil and lid are long and tapering. The mouth is fringed with a simple row of numerous, white, capillary teeth, closely and spirally twisted together, apparently united or conglutinated for almost their whole length, but divaricated at the summit. This peculiar fringe characterizes the genus, to which belongs our *Bryum rigidum*, *v.* 3. *t.* 180, for we beg leave to unite the *Barbula* and *Tortula* of Hedwig into one genus.



Psora atro-rufa.

Jun.1 1801 Published by Ja.s Sowerby London.

LICHEN atro-rufus.

Red-brown Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust lobed, angular, smooth, of a whitish brown. Shields sessile, flattish, dark red brown with a blackish narrow border; at length confluent.

SYN. Lichen atro-rufus. *Dicks. Crypt. fasc.* 4. 22. *t.* 12. *f.* 4.

FOUND by Mr. Dickson, on a hill near Penrith, Cumberland, growing on the red sandy ground among mosses. We have received it, along with a most valuable collection of Lichens besides, from the Rev. Mr. Harriman of Eggleston, Durham. Dr. Acharius seems unacquainted with this species, and we are at a loss whether to refer it to his 6th section (*Patellaria*) or to his 10th (*Psoroma*). The crust is certainly lobed and angular, not leprous, nor undefined; its colour when young is white, but afterwards more or less brownish; the surface smooth, and, though less imbricated, it in some degree approaches the structure of *L. luridus*, *Achar.* 95. The shields are very numerous, sessile, of a dark reddish brown, with a narrow still darker border; they are at first flat, but afterwards become rather tumid, confluent, and extremely irregular in form. They are at all times very smooth, and, when wet, slightly pellucid or waxy.

1103

2179

Sticta fuliginosa

Dec.r 1.st 1802 Published by Ja.s Sowerby London

LICHEN fuliginosus.

Sooty leafy Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR: Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Membranous, spreading, roundly lobed, dark greenish grey, rough with blackish granulations: beneath downy, with white pits. Shields red brown, with a pale border.

SYN. Lichen fuliginosus. *Dicks. Crypt. fasc.* 1. 13. *With. v.* 4. 70. *Hull.* 299. *Achar. Prod.* 158.
Lichenoides fuliginosum et pulverulentum, scutellis rubiginosis. *Dill. Musc.* 198. *t.* 26. *f.* 100. A.

FOUND on rocks, as well as on trees in old dark woods, but only in the alpine counties. We have gathered it about Ambleside, Westmoreland, and at Hafod, Cardiganshire. Mr. E. Forster found it in Rookwood grove, at Boconnoc, Cornwall, and Dillenius, Mr. Griffith and Mr. D. Turner in North Wales.

The fronds spread from a centre in a loosely imbricated manner among moss, generally on the trunks of trees, especially hazels and thorns. Their texture is membranous and pliable; their lobes rounded, various in size; their upper side rather rugose, of a greyish or greenish brown, sprinkled all over with rough, dark-coloured warts or granulations; their under side pale reddish brown, downy, dotted with small, white, smooth, scattered pits. The shields are of very rare occurrence, standing for the most part near the margin, small, slightly elevated, having a rusty-brown disc, elevated by age, and a narrow, pale, entire border, which is obliterated as the shields grow old.—This has been confounded with *L. sylvaticus*, with which it agrees in a certain fœtid smell when moist, and somewhat in colour; but differs widely in fructification, as well as in the size and roundness of the lobes.

1104

2178.

Sticta limbata?

Dec.ˡ 1802. Published by Jaˢ Sowerby London

LICHEN limbatus.

Mealy-bordered leafy Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Membranous, spreading, roundly lobed, glaucous brown, smooth; grey and powdery towards the margin: beneath downy, with white pits. Shields brown.

SYN. Lichenoidis, *Dill. Musc.* 198. *t.* 26. *f.* 100, varietas farinosa, B, C.

WE have long ago observed this Lichen, at the roots of trees, and on shady mossy rocks at the Hermitage near Edinburgh, as well as growing with *L. fuliginosus* at Hafod, and are convinced of its being distinct from that species, which Dillenius (who gathered the same in Bagley wood, Oxfordshire) seems also inclined to suspect. The fructification was found by Mr. Menzies in Scotland, and by Mr. D. Turner upon Snowdon. Neither we nor Dillenius could ever discover it.

In form this resembles the preceding, but differs a little in colour, being of a glaucous brown. The chief difference consists in the surface being destitute of rough granulated warts, and on the contrary quite smooth and polished, except towards the margin, which is profusely covered with grey or pale lead-coloured mealiness, produced from cracks in the cuticle, and not at all of the nature of a parasitical *Byssus*, as Dillenius supposes; neither can this be the male, or "powder-bearing plant" of the former, for it has proper shields of its own, though rarely produced, which differ from those of *L. fuliginosus* in having a broad base, or rather being imbedded in the frond, which rising around them forms a slightly elevated border, that slopes off into the common level of the surface, and is not contracted into any thing like a footstalk. The under side of the frond is like the last.

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LYCOPUS europæus.

Water Horehound.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* four-cleft; one of its lobes notched. *Stam.* distant. *Seeds* 4, naked, blunt.

SPEC. CHAR. Leaves deeply serrated.

SYN. Lycopus europæus. *Linn. Sp. Pl.* 30. *Sm. Fl. Brit.* 29. *Huds.* 9. *With.* 20. *Hull.* 6. *Relh.* 11. *Sibth.* 8. *Abbot.* 6. *Curt. Lond. fasc.* 3. *t.* 2.
L. palustris glaber. *Raii Syn.* 236.

THIS plant is very frequently to be seen about the banks of rivers, ditches and pools, especially where the soil is sandy and the water clear, flowering plentifully in July and August.

Root perennial, creeping. Stem erect, two feet high, square, leafy, roughish. Leaves opposite, on short stalks, lanceolate or ovate, acute, deeply and coarsely serrated, sometimes pinnatifid, particularly towards their base: they are roughish on both sides, and marked beneath with resinous dots, as in the Mints, but have no aromatic smell. Flowers numerous, in axillary whorls, sometimes fragrant in hot weather. Calyx downy, with sharp bristly teeth. Corolla white, prettily dotted with purple about the orifice, and hairy within. Stamina two, sometimes four. Antheræ with two acute lobes. Seeds four, obovate, blunt, square, and furrowed on each side.

The glandular dots, form of the corolla, and whole habit show the affinity of this plant to *Mentha*; but we believe the seeds would serve sufficiently to distinguish it without adverting to the number of its stamina.

Milium effusum.

MILIUM effusum.

Spreading Millet-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, single-flowered, tumid. *Seed* invested with the permanent hardened corolla.

SPEC. CHAR. Flowers loosely panicled, awnless.

SYN. Milium effusum. *Linn. Sp. Pl.* 90. *Sm. Fl. Brit.* 75. *Huds.* 29. *With.* 122. *Hull.* 17. *Relh.* 26. *Sibth.* 35. *Abbot.* 13. *Curt. Lond. fasc.* 4. *t.* 12.

Gramen miliaceum. *Raii Syn.* 402.

AN elegant grass, not unusual in moist shady places, flowering in June and July.

The root is fibrous, bearing one or more stems, and throwing out several procumbent shoots that produce radicles from their joints. Hence the plant appears to be, as Linnæus and Curtis assert, perennial; and having never cultivated it, we have no solid grounds for supporting a contrary opinion; nevertheless, several truly annual plants, as *Poa annua* and some species of *Polygonum*, do take fresh root during the summer in a similar manner, and it only remains to be examined whether these offsets of the *Milium* flower the same season with their parent or not.

The stems are erect, 2 or 3 feet high, leafy, smooth. Leaves broad, flat, roughish on the margin, and crowned with an oblong stipula. Panicle erect, lax and widely spreading, formed of several alternate fascicles of variously branched capillary flowerstalks. Flowers pale whitish green. Calyx-valves elliptical, concave, 3-ribbed, beardless, nearly equal. Corolla of the same form but smaller, smooth, nerveless, becoming at length horny, the outer valve being smaller, embracing the inner valve and the seed.

Mr. Curtis justly points out the affinity of this grass to the genus *Panicum*, and we think the generic character ought, as in that, to be founded on the hard permanent corolla.

Jan 1. 1801 Published for Tho. Stewart by London

MILIUM lendigerum.

Panick Millet-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, single-flowered, tumid. *Seed* invested with the permanent hardened corolla.

SPEC. CHAR. Panicle close and spiked. Corolla awned.

SYN. Milium lendigerum. *Linn. Sp. Pl.* 91. *Sm. Fl. Brit.* 76. *With.* 122. *Hull.* 17.

Agrostis australis. *Linn. Mant.* 1. 30.

A. rubra. *Huds. ed.* 1. 26.

A. ventricosa. *Gouan. Hort.* 39. *t.* 1. *f.* 2.

Alopecurus ventricosus. *Huds. ed.* 2. 28.

Panicum serotinum arvense, spicâ pyramidatâ. *Raii Syn.* 394.

IT is difficult to draw a line between the characters of *Milium* and *Agrostis*, nor is the Linnæan definition of the latter correct; hence there will be found in the *Fl. Brit.* a contrariety between that definition (too incautiously adopted) and the particular descriptions copied from nature. If the corolla of *Agrostis* be described *membranous*, instead of "larger than the calyx," it will probably remove the difficulty. The grass now before us Linnæus has unconsciously mentioned under both genera. We consider it as a *Milium*, because the corolla hardens as the seed ripens, and closely enfolds it: in the true species of *Agrostis* that part continues membranous and laxly spreading, though we must confess *A. Spica venti* (*t.* 951) does not correctly answer to this description, nor *A. miliacea*, which last is surely a *Milium*.

M. lendigerum is an annual grass, growing (though rarely) in such fields as are occasionally overflowed, and flowering in August. Its stem is branched, erect, leafy. Whole herb pale green, not red. Panicle upright, dense, spike-shaped. Calyx smooth, polished and swelling at the base; tapering and rough upwards. Corolla short, ovate, downy, mostly awned; the inner valve narrowest and beardless. We know this to be the *Agrostis rubra* of Hudson's first edition; that of Linnæus is by no means well ascertained.

Curt's Bot. Mag. Published by Jas. Lowndes, London.

LATHYRUS latifolius.

Broad-leaved Everlasting Pea.

DIADELPHIA Decandria.

GEN. CHAR. *Style* flattened, downy above, broader upwards. Two upper segments of the *calyx* shortest.

SPEC. CHAR. Several flowers on a stalk. Tendrils bearing a pair of elliptical leaves. Stem winged.

SYN. Lathyrus latifolius. *Linn. Sp. Pl.* 1033. *Sm. Fl. Brit.* 766. *Huds.* 316. *With.* 634. *Hull.* 161. *Relh.* 280. *Abbot.* 156. *Mart. Fl. Rust. t.* 8.
L. major latifolius. *Raii Syn.* 319.

COMMUNICATED by the Rev. Dr. Abbot from Hawnes and Bromham, Bedfordshire. It is a rare and, as many persons think, a doubtful native, though Ray seems to have had sufficient authority to believe it indigenous. Possibly it may have escaped from gardens to some of the woodland situations where it now appears naturalized. Few British plants are more ornamental, either in a sunny exposure or shady situation, it being covered with beautiful rose-coloured flowers throughout July and August. The deeply branching roots continue for a great number of years without spreading from their original station, and throw up numerous annual climbing winged and branched stems, like those of *L. sylvestris*, *t.* 805. From that species it differs in being of a more glaucous hue, in having broad elliptical leaflets, more branching tendrils, and broader and more ovate stipulæ. The flowers also are larger, of a much more vivid red colour, and have the lower teeth of their calyx somewhat more elongated.

The prodigious crop yielded by this plant, and the lasting nature of its roots even on a barren soil, seem to render it a fit object for agricultural experiments.

HEDYPNOIS Taraxici.

Alpine Hedypnois.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked, dotted. *Cal.* imbricated, with scales at the base. *Down* feathery, sessile, unequal.

SPEC. CHAR. Stalks mostly single-flowered. Leaves smooth, toothed; the teeth recurved. Calyx hairy.

SYN. Hedypnois Taraxici. *Sm. Fl. Brit.* 825.
H. autumnale ε. *Huds.* 341.
Hieracium Taraxici. *Linn. Sp. Pl.* 1125. *With.* 683. *Hull.* 175. *Lightf.* 435. *Dicks. H. Sicc. fasc.* 17. 15.

THE late Mr. J. Mackay, to whom we are obliged for many specimens of this rare plant, mentioned it as growing in moist places on several of the Highland mountains. Lightfoot gathered it in Skye, and Hudson in Wales, but few travellers have noticed it.

The root is perennial, abruptly bitten off, producing long simple lateral fibres, and the flowers appear in August. The herbage is variable, the leaves being either lanceolate and almost linear, or spatulate and obovate; their teeth also vary greatly in size or prominence, but are always more or less runcinate, or hooked backwards. The surface of the leaves is smooth. The stalk or stalks vary in length. Though generally simple, they are sometimes divided. They swell upwards, and there assume a dense black hairiness, continued all over the calyx. One or two awl-shaped bracteæ are found on the stalk. The florets are of a full yellow, with brownish teeth at the summit. Receptacle naked. Seeds angular and rough. Down finely feathery, sessile, though the germen seems surmounted with a taper neck resembling a footstalk, but as the seed swells this appearance vanishes.

Dr. Solander, who first found a single specimen of this plant in Lapland, conceived it to be a mule production between *Hieracium alpinum* and *Leontodon Taraxacum*, but we find nothing to countenance such an opinion.

Dec.r 1 1802 Published by Jas Sowerby London.

HIERACIUM alpinum.

Alpine single-flowered Hawkweed.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* nearly naked, dotted. *Cal.* imbricated, ovate. *Down* simple, sessile.

SPEC. CHAR. Leaves oblong, undivided, entire or toothed. Stalk almost leafless, single-flowered. Calyx hairy.

SYN. Hieracium alpinum. *Linn. Sp. Pl.* 1124. *Sm. Fl. Brit.* 827. *Huds.* 343. *With.* 683. *Hull.* 175. *Lightf.* 434. *t.* 18.

H. villosum alpinum, flore magno singulari, caule nudo. *Dill. in Raii Syn.* 169. *t.* 6. *f.* 2.

RAY was acquainted with this plant, but took it for *Hieracium quintum villosum* of Clusius (*H. villosum* of Linnæus), an error rightly corrected by Dillenius. It grows on rocky parts of the high mountains of Wales and Scotland, flowering in July.

Root, perennial, abrupt, with several long strong fibres. Whole herb clothed with prominent hoary rigid hairs, yellowish brown at their base. Leaves almost all radical, obovate, not broad, undivided, either entire or more or less toothed and undulated. Stalk solitary, erect, simple, round, darker coloured in the upper part, bearing generally one leaf near its base, and a small bractea higher up. Calyx dark-coloured and very hairy. Corolla large, of a full yellow. Tube of each floret hairy. Seeds obovate, angular, dotted. Down sessile, rough. Receptacle naked.

The fructification of this *Hieracium*, when accurately compared with *Hedypnois Taraxici*, is too unlike to warrant the supposition of the latter being its hybrid offspring, though appearances might at first sight seem to countenance such an idea. Linnæus however eagerly grasped at his ingenious pupil's suggestion, and has too positively insisted on it in his *Sp. Plant.* and Disquisition on the Sexes of Plants.

Jan.ʸ 1.1801 Published by ... London

CREPIS tectorum.

Smooth Hawk's-beard.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* roughish. *Cal.* surrounded with deciduous scales, and at length swelling into protuberances. *Down* simple, generally on a footstalk.

SPEC. CHAR. Radical leaves runcinate: the rest embracing the stem, lanceolate and toothed. Stem smooth.

SYN. Crepis tectorum. *Linn. Sp. Pl.* 1135. *Sm. Fl. Brit.* 837. *With.* 689. *Hull*, 174. *Relh.* 310. *Sibth.* 240. *Abbot.* 172. *Curt. Lond. fasc.* 5. *t.* 55.
Hedypnois tectorum. *Huds.* 341.
Hieracium luteum glabrum, sive minus hirsutum. *Raii Syn.* 165.

NOTHING can be more common than this *Crepis* in dry waste place, on walls, rubbish, and banks, flowering from June to the end of September.

Root annual, tapering. Herb very various in size, strength and luxuriance. Stem upright, branched, furrowed, smooth, or very rarely a little hairy, generally stained with purple just above each ramification. Leaves smooth, bright green; the radical ones runcinate; the rest clasping the stem with an arrow-shaped base, and more or less deeply toothed above their insertion. Panicle upright, forked, corymbose, roughish, furnished with small leaves. Flowers bright yellow, much smaller than in any other common Hawkweed. Calyx rough. Seeds furrowed. Down rough, sessile. Receptacle somewhat cellular and roughish.

Although variable in its herbage, the smooth leaves, small flowers and purplish stem make this plant easily known. It most certainly belongs to the very natural genus of *Crepis*, however incorrectly the characters of that genus may be defined by some authors.

CARDUUS nutans.

Musk Thistle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* swelling, imbricated with spinous scales *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves interruptendly decurrent, spinous. Flowers drooping. Calyx-scales lanceolate, their upper part spreading.

SYN. Carduus nutans. *Linn. Sp. Pl.* 1150. *Sm. Fl. Brit.* 848. *Huds.* 350. *With.* 699. *Hull.* 179. *Relh.* 315. *Sibth.* 244. *Abbot.* 175. *Raii Syn.* 193.

THIS, the only British *Carduus* which remains to be published in the present work, is not uncommon in waste ground, fallow fields and barren pastures where the soil is gravelly, or, more especially, calcareous. It is an annual plant, flowering in July and August. The flowers are not unornamental, and smell strongly of musk in warm weather. Their drooping posture distinguishes them from our other thistles.

The stem rises, from a spindle-shaped root, to the height of 2 or 3 feet, sometimes not so much, and is striated, slightly invested with cottony down, and clothed with alternate leaves, which form an interrupted spinous wing on each side the stem. The leaves also are very spinous, deeply sinuated and waved, green on both sides, a little hairy but not rough. Flowers on a woolly, round, naked, curved stalk, solitary, terminal, of a rich crimson. Calyx ovate, its scales ending in broad spreading leafy points, slightly clothed with cotton. Seeds obovate, shining, marked with dotted streaks. Down deciduous, simple, rough, but not feathery.

BIDENS tripartita.

Trifid Bur Marygold.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* chaffy. *Down* formed of rigid bristles, rough backwards. *Cal.* of many leaves. *Cor.* sometimes radiated.

SPEC. CHAR. Leaves three-cleft. Calyx leafy at the base. Bristles of the seed two or three, erect.

SYN. Bidens tripartita. *Linn. Sp. Pl.* 1165. *Sm. Fl. Brit.* 858. *Huds.* 355. *With.* 706. *Hull.* 181. *Relh.* 319. *Sibth.* 248. *Abbot.* 177. *Curt. Lond. fasc.* 4. *t.* 57.

Verbesina seu Cannabina aquatica, flore minus pulchro, elatior et magis frequens. *Raii Syn.* 187.

FREQUENT in watery places and about the banks of ditches, flowering in August and September.

Root annual, spindle-shaped. Stem 2 or 3 feet high, upright, branched, spreading, leafy, angular, furrowed, smooth. Leaves opposite, smooth, deeply serrated, cut in one large lobe with two or four smaller at its base. Flowers solitary, terminating each branch, rather drooping, surrounded with several simple, spreading, entire, rough-edged leaves. Calyx-scales nearly equal, flat, smooth, streaked with brown. Florets yellow, uniform, tubular and regular. Scales of the receptacle like the calyx-scales, but narrower. Seeds compressed, furnished with two or three angles which are regularly beset with little reflexed teeth, and terminate in two or three upright triangular bristles, likewise rough with reflexed teeth.

This plant is said to dye woollen and line cloths yellow, but we have better materials for the purpose in common.

BIDENS cernua.

Nodding Bur Marygold.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* chaffy. *Down* formed of rigid bristles, rough backwards. *Cal.* of many leaves. *Cor.* sometimes radiated.

SPEC. CHAR. Leaves lanceolate, serrated. Flowers drooping, leafy at their base. Bristles of the seed about four, erect.

SYN. Bidens cernua. *Linn. Sp. Pl.* 1165. *Sm. Fl. Brit.* 858. *Huds.* 356. *With* 705. *Hull.* 181. *Relh.* 320. *Sibth.* 248. *Abbot.* 177. *Curt. Lond. fasc.* 3. *t.* 55.

Verbesina pulchriore flore luteo. *Raii Syn.* 187.

LESS common than the preceding species, but not very rare in ponds and ditches on a gravelly soil, growing in the water and blossoming in September.

Root annual, branching. Stem often roughish, and less spreading than the other. Leaves embracing the stem, undivided, lanceolate, deeply serrated. Flowers remarkably drooping, larger and of a brighter yellow than those of *B. tripartita;* the angles of the seeds moreover are less regularly spinous, and their bristles four instead of 2 or 3. Sometimes the flowers are furnished with large radiant ligulate marginal female florets, in which case the plant becomes *Coreopsis Bidens* of Linnæus, and is one proof among others that nature has fixed no strict limits between the orders *Polygamia-æqualis* and *Polygamia-superflua,* the latter being somewhat analogous to double flowers in other classes.

The *Bidens minima* of Linnæus and others is only a starved plan of this species growing out of the water.

Pulicaria dysenterica.

INULA dysenterica.

Common Fleabane.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* nearly naked. *Down* simple. *Cal.* imbricated. *Florets* of the radius very numerous, linear. *Antheræ* with 2 bristles at the base.

SPEC. CHAR. Leaves oblong, clasping the stem with their heart-shaped base, downy. Stem woolly, panicled. Calyx-scales bristle-shaped, hairy.

SYN. Inula dysenterica. *Linn. Sp. Pl.* 1237. *Sm. Fl. Brit.* 891. *Huds.* 368. *With.* 731. *Hull.* 185. *Relh.* 331. *Sibth.* 246. *Abbot,* 184. *Curt. Lond. fasc.* 3. *t.* 56.

Conyza media. *Raii. Syn.* 174.

THIS is a frequent plant in clear ditches and watery places, where its golden flowers are conspicuous in August.

The root is creeping and perennial. Stem a foot or more in height, upright, branched in a panicled or corymbose manner, angular, woolly, clothed with alternate oblong spreading leaves, which embrace the stem with their heart-shaped base. Their margin is waved and slightly toothed; their surfaces veiny; and the under side in particular densely clothed with hoary down. Flowers numerous, terminal, solitary, horizontal, of a full bright yellow. Leaves of the calyx awl-shaped, hairy. Radiant florets twice as long as the calyx, spreading, linear, ending in three teeth, and at length revolute. Each anthera with two longish bristles at its base. Seeds obovate, rough, crowned with rough down. Receptacle a little cellular, and beset with minute unequal teeth. The herb is viscid to the touch, and exhales a peculiar sharpish aromatic scent, not unlike that of a peach.

Mr. Relham in the second edition of his *Flora Cantabrigiensis* just published, to which edition we have of late always referred, mentions a variety of this *Inula* with very short rays that has hitherto escaped our notice.

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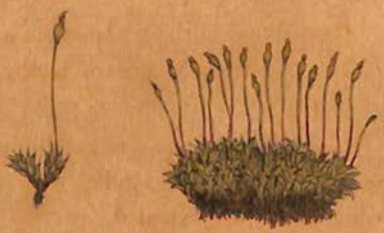


Jan.ʸ 1. 1800 Published by Jas Cundee Liverpool

SPLACHNUM Turnerianum.

Turnerian Splachnum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* cylindrical, placed on a fleshy *receptacle*. *Fringe* of a simple row of teeth, approaching each other in pairs.

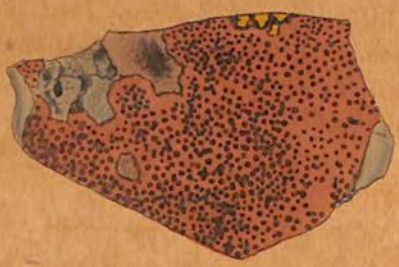
SPEC. Char. Receptacle obvate, green. Capsule rounded at the base, standing on a short stalk. Leaves lanceolate, taper-pointed, somewhat serrated.

SYN. Splachnum Turnerianum. *Dicks. Crypt. fasc* 4. 3. *t.* 10. *f.* 11.

S. sagittifolium. *With.* 791. *t.* 18. *f.* 2, left hand figure.

A NATIVE of mountanous heaths and moors, found by Mr. Griffith in North Wales, and by Mr. Turner and Mr. Sowerby in a bog on a high hill three miles from Exeter towards Sydmouth.

This is one of the smaller kinds of *Splachnum*, being only an inch high. It is in perfection about the end of May or middle of June. The stem is very short and simple. Leaves lanceolate, broad in the middle, pale green, reticulated, terminating in a taper point; the upper ones serrated, especially in their upper part. Fruit-stalk purplish, changing abruptly into a pale green at the top. Receptacle of a pale pellucid green, obovate. Capsule light reddish brown, cylindrical, rounded off at the base, and contracted into a short foot-stalk which joins it to the receptacle. Lid red, convex. Fringe of eight pairs of yellowish, at length reflexed, teeth. Veil short, oblique.



Jan.ry 1. 1803. Published by Jas. Sowerby, London.

LICHEN Oederi.

Oederian Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust thin, tessellated, of a rusty red. Shields minute, somewhat globose, a little immersed. concave, black, with a thick, black border.

SYN. Licheh Oederi. *Achar. Prod.* 66. *Swartz. Act. Upsal. v.* 4. 245. *Linn. Fil. Meth. Musc.* 36.

L. cæsius. *Dicks. Crypt. fasc.* 2. 19. *t.* 6. *f.* 6. *Hull.* 290.

L. Dicksoni. *With. v.* 4. 20. *Achar. Prod.* 76.

L. leprosus ruber, tuberculis nigris. *Oeder. in Fl. Dan. t.* 470. *f.* 1.

THIS the real *Lichen Oederi* (being certainly that figured in the *Fl. Danica*) was sent us by the Rev. H. Davies from North Wales, growing on slate. I first found it in 1781, on rocks about Edinburgh, when it was supposed to be the *fusco-ater* of authors. Mr. Dickson has since named it *cæsius*, and Dr. Withering called it *Dicksoni*. Among so many names we are obliged to follow the Swedish and Danish authorities, as most original and authentic, and we have established our synonyms on original specimens.

Its very thin crust forms spots from half an inch to two inches in diameter, and is inseparable from the stone, of an uniform rusty red, tessellated, but not rugged, except when very old. We have in some young specimens perceived a lobed appearance towards the edge. The shields are exceedingly numerous, very small, partly sunk in the crust, and partly prominent and somewhat globose, entirely black or very slightly glaucous; the margin even, and extremely black in proportion to the disc, which is concave and depressed. Two or three of the shields are often crowded together in a line or otherwise.—In Dr. Acharius's specimens the crust is more granulated than in ours, which we presume to be the effect of age.

Lecidea silacea.

Jan.ʸ 2. 1803. Published by Jas Sowerby London.

LICHEN silaceus.

Yellow ochrey Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust uneven, tessellated, yellowish-red. Shields sessile, black, at length convex; their border acute, black.

SYN. Lichen silaceus. *Achar. Prod.* 66.
L. Oederi. *Web. Spicil.* 182. *Dicks. Crypt. fasc* 2. 17? *With. v.* 4. 11. *Hull.* 286?
Patellaria silacea. *Hoffm Pl. Lich. t.* 19. *f.* 2.

———o———

THAT this is what Weber named *L. Oederi* we are certain from German specimens as well as from his description; but, as he erred in supposing it the *Lichen* figured by Oeder, his name must give place to that adopted by Hoffmann and Acharius, two great authorities in this department of botany. That it is Mr. Dickson's *Oederi* we hesitate to pronounce, because the specimen in his *H. Sicc. fasc.* 2. 24. appears to us rather *L. confluens* tinged with an ochrey hue, as mentioned by Dr. Acharius, p. 66, which hue however we believe to be caused by animal matter rather than by iron.

This species is totally distinct from the preceding. Its crust is thicker, more uneven and deeply cracked, of a yellowish buff colour rather than red. The shields are three or four times as large as those of *L. Oederi*, sessile, not immersed; their margin thin and sharp, often waved, their disc broad, and, though flat at first, soon convex, especially in its centre, which is protruded in a mammillary form, simple or divided, and sometimes crowned with a sort of cup or pore. In what respects *L. confluens* differs from this we hope some some other time to demonstrate. Both of them grow on mountainous rocks in the north.

LICHEN aphthosus.

Thrush Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leathery, spreading, roundly lobed, smooth, green, sprinkled with brown warts; beneath fibrous, slightly veined. Shields on narrow ascending lobes, anterior, roundish, reddish.

SYN. Lichen aphthosus. *Linn Sp. Pl.* 1616. *Huds.* 547. *With. v.* 4. 70. *Hull.* 299. *Lightf.* 847.

Lichenoides digitatum lætè virens, verrucis nigris notatum. *Dill. Musc.* 207. *t.* 28. *f.* 106.

Peltigera aphtosa. *Hoffm. Pl. Lich. t.* 6. *f.* 1.

WE have received this from our often-mentioned friends Mr. Relhan, Mr. Harriman, and Mr. D. Turner. It is found only in alpine rocky shady places, growing on the ground under firs or juniper bushes. Having never seen a British specimen in fruit, we have been obliged to delineate a shield gathered in Savoy, where the plant is more luxuriant than in this country.

The fronds spread circularly from 3 to 6 inches in diameter, cut into several round lobes. Their upper side is of a most beautiful shining grass green, (which turns brown in drying,) sprinkled with small dark-brown warts, having something of the appearance of shields or tubercles. The true shields grow on oblong upright narrow lobes, springing from the frond near the margin, and are large, concave, of a bright chesnut-colour, encircled with a downy inflexed jagged border. The under side of the frond is clothed with dense black woolly roots, except towards the margin, where it is light brown and beset with little tufted brown radicles. It is absurd to suppose this, as some have done, a variety of *L. caninus.*

Linnæus says the Swedish peasants boil this Lichen in milk as a cure for the *aphthæ* or thrush in children

Lond.t 1803 Published by Sa.t Leigh London

FUCUS Palmetta.

Dwarf Palm Fucus.

CRYPTOGAMIA Algæ.

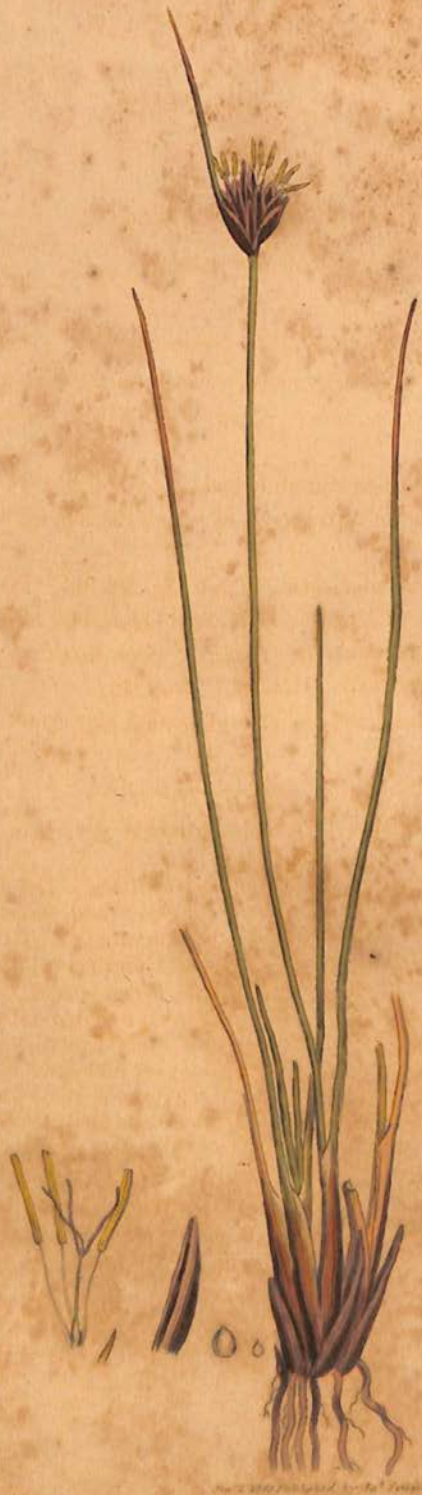
GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Stalk round, nearly simple. Frond branching into many palmate spreading veinless segments. Tubercles on the extreme linear lobes.

SYN. Fucus Palmetta. *Turn. Syn.* 21. *Stackhouse Ner. Brit.* 102. *t.* 16.

OUR figure of this *Fucus* is taken from the very specimen sent to Mr. Turner by Mr. Stackhouse, the only British botanist who has found this species. It grows parasitically on the large stems of *F. digitatus* on the Cornish coast. These gentlemen have followed Professor Esper in calling it *F. Palmetta*; though that name was preoccupied by Gmelin; but as his is a doubtful species, we accede to their decision; at the same time begging leave to observe that a new name would have been preferable.

The root produces several slender, round, mostly undivided stalks, which expand into a spreading pale red, palmate, many-fingered leaf, of a thin membranous texture, without veins, and destitute of teeth or serratures. The extreme subdivisions are linear and very narrow; and on these grow the tubercles, sessile, globose, of a darker red than the frond, containing many seeds, which escape by the upper half of each tubercle separating in time from its base. By the situation of its fructification this plant is, as Mr. Turner justly observes, sufficiently distinguishable from *F. membranifolius*, the only species with which it could otherwise be confounded.



SCHOENUS nigricians.

Black Bog-rush.

TRIANDRIA Monogynta.

GEN. CHAR. *Glumes* chaffy, clustered; the outer ones barren. *Cor.* none. *Seed* 1, roundish, among the glumes.

SPEC. CHAR. Stem round, naked. Head of flowers ovate. Involucrum of two leaves, of which the longest is awl-shaped.

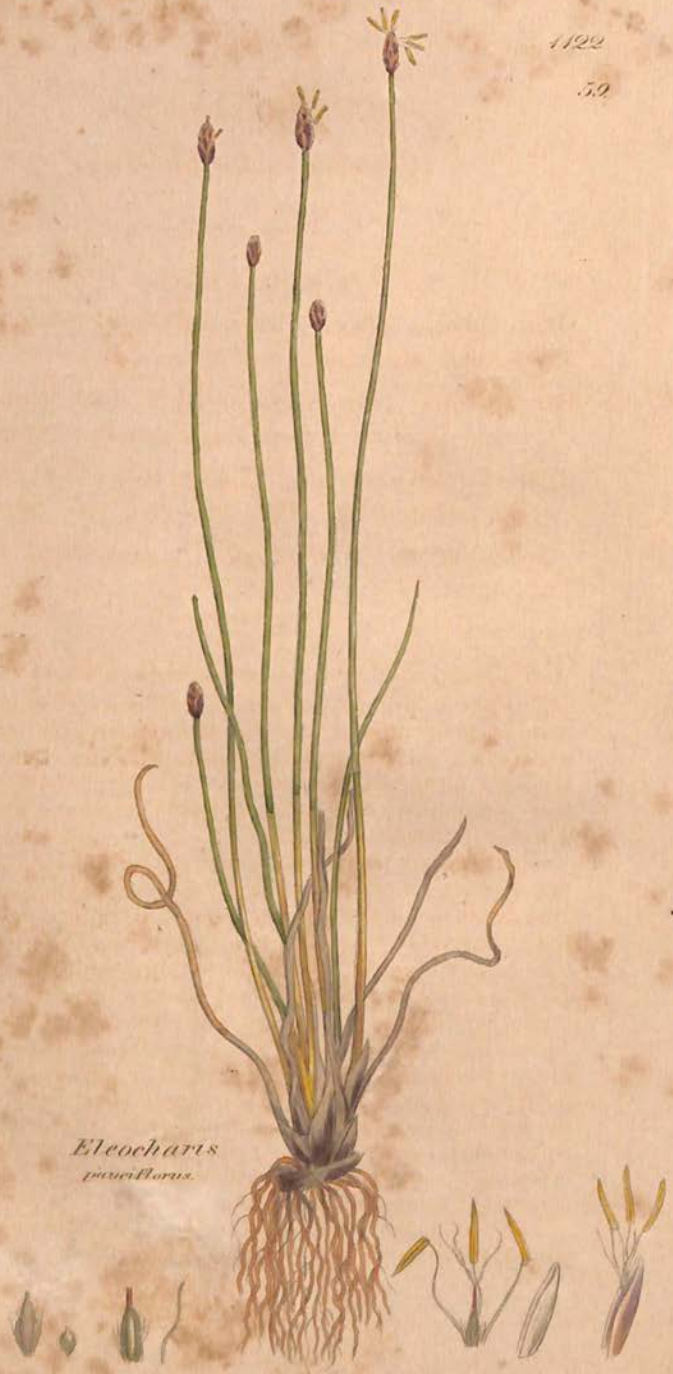
SYN. Schoenus nigricans. *Linn. Sp. Pl.* 64. *Sm. Fl. Brit.* 43. *Huds.* 15. *With.* 80. *Hull.* 12. *Relh.* 19. *Sibth.* 22. *Abbot.* 9. *Dicks. H. Sicc. fasc.* 1. 1.

Cyperus nigricans. *With.* 78. *Hull.* 12.

Juncus lævis minor, paniculâ glomeratâ nigricante. *Raii Syn.* 430.

NOT unfrequent on turfy bogs, where it flowers in June, and is perennial.

The roots consist of long strong black fibres. The stem is from 8 to 12 inches high, erect, simple, round, naked and smooth. Leaves erect, very narrow, acute; round on the under side, flat above; their base dilated and embracing the stem. Head of flowers terminal, erect, composed of several spikelets of imbricated florets, and subtended by an involucrum of two upright leaves, very much dilated into a brown concave membrane at their base, both of them in fact awl-shaped, but one only rises above the flowers. Each glume is keeled, dark brown, destitute of nerves, and more or less sharp-pointed. Stamina three. Stigma, as far as we have seen, three-cleft; but that circumstance being variable in some neighbouring species, we dare not found upon it any character of distinction between this and *S. rufus.* The germen is surrounded by a few narrow scales. Seed roundish with three angles, white and polished, as Ehrhart and Mr. L. Wigg have remarked. We are obliged to the latter for hinting (what indeed we had already discovered in investigating the Greek plants) the great importance of the seed in distinguishing species in this tribe.



Eleocharis
paucifloras.

SCIRPUS pauciflorus.

Chocolate-headed Club-rush.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1.

SPEC. CHAR. Stem round, sheathed at the base. Spike terminal, of few flowers, longer than its outer glumes.

SYN. Scirpus pauciflorus. *Lightf.* 1078. *Sm. Fl. Brit,* 50. *Huds.* 648. *With.* 74. *Hull.* 13. *Sibth.* 23.

S. Bæothryon. *Ehrh. Phyt.* 31. *Linn. Suppl.* 103.

THE *Scirpus* here represented, though found on moors and heaths in Scotland and even Norfolk, as well as in various parts of the continent, and now sufficiently well known and understood, was overlooked by Ray, Dillenius, Linnæus and Hudson; for the latter merely adopted it from the *Fl. Scotica.* Our specimens were gathered near Yarmouth by Mr. D. Turner, flowering in August.

The roots are perennial, formed of black or reddish fibres. Stems erect, simple, naked, slender, round, rigid, smooth, less crowded than those of *S. cæspitosus, t.* 1029, and destitute of the numerous imbricated scales at their base, that part being only closely enfolded by an entire, abrupt, pointless sheath. Leaves sheathing at their base, narrow, bluntish, smooth, somewhat concave above, generally shorter than the stem. Spike erect, simple, smaller and blacker than that of *S. cæspitosus,* formed of about four flowers, the glumes of which are nearly equal in size, the two lowermost not rising so high as the top of the spike. Stigma three-cleft. Germen angular, surrounded by several rough simple bristles, which remain investing the seed, which is triangular, swelling in the middle, contracted below the top.

We have received this plant from Dr. Roth as the *S. campestris* of his excellent *Flora Germanica.*

Poa laxa.

Feb.ʸ 1. 1803. Published by Jas. Sowerby, Lond.

POA flexuosa.

Zigzag Meadow-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets *Spikelet* rounded at the base. *Cor.* of 2 ovate, pointed, beardless valves.

SPEC. CHAR. Panicle zigzag. Spikelets of three flowers. Glumes ovate, connected by a web. Stipulæ all lanceolate.

SYN. Poa flexuosa. *Sm. Fl. Brit* 101.

THE Scottish mountain of Ben Nevis, amongst a profusion of botanical rarities, has afforded us this new species of *Poa*, discovered there by the late Mr. John Mackay, a young man who sacrificed his repose, and finally his health and life to the too ardent pursuit of botany and horticulture. His discriminating powers and readiness of communication will long live in the memory of those who knew him. We would never neglect the opportunity of twining a modest garland for the brows of such benefactors to science, even though it were only of grass or moss.

This *Poa*, we believe, has never been mentioned except in the *Flora Britannica*. It is perennial, growing in small tufts, and flowering in July. The colour of the herbage is a light, rather glaucous, green. The stems ascend obliquely, and are often bent at the joints. Leaves spreading, narrow, sharp, roughish above, with long, lax, flattish sheaths. Stipulæ, all lanceolate and acute. Panicle ovate, rather dense, its stalks angular, rough, more or less zigzag, especially at the base. Spikelets broad-ovate, rather glaucous, of about 3 florets. Calyx-glumes a little unequal, hardly falcate, acute, rough at the keel, white and thin at the edge, and stained with purple towards that part. Florets shaped and coloured much like the calyx, or rather less ovate; their margin smooth, not silky, their keel rough, their bases connected by long hairs. Their inner glumes are rough at the edge.

Pub.d 1803 Published by Jas. Sowerby London.

LOLIUM temulentum.

Bearded Darnel.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 1 valve, fixed, many-flowered. *Florets* in 2 ranks.

SPEC. CHAR. Flowers bearded. Spikelets shorter than the calyx. Florets elliptical. Stem rough in the upper part.

SYN. Lolium temulentum. *Lynn Sp. Pl.* 122 *Sm. Fl. Brit.* 150. *With.* 168. *Hull.* 27. *Relh.* 45. *Abbot.* 26.

L. album. *Raii. Syn.* 395.

AN annual weed, found occasionally in fields among wheat, barley or flax, coming to perfection in July.

The root is formed of a few short downy fibres. Stem one or more, erect, two feet high, round, striated, leafy; smooth and shining below; rough upwards. Leaves lanceolate, spreading, grass-green, ribbed, rough above. Their sheaths are also roughish. Stipula short, blunt, crenate. Spike long and upright, with an angular rough stalk. Spikelets alternate; in 2 ranks, a little tumid. Calyx of one, linear, flattish, beardless husk, rough to the touch, mostly accompanied, in the lower spikelets, with a much shorter elliptical inner valve, pressed close to the excavation of the common stalk, so that the generic charcter is not strictly exact in every case. Florets closely ranged in a two-ranked spikelet, which does not in general reach above half the height of the corresponding calyx Their glumes are elliptical, tumid, each tipped with a long straight, rough awn; the margin of the outer glume membranous, of the inner rough. Seed flattish.

The seeds of this grass are reported to be intoxicating to men, beasts, and birds, and even to bring on convulsions and death. It is not common enough with us to be extensively dangerous.

Feb.ʸ 1803 Published by Ja.ˢ Sowerby London

LOLIUM arvense.

Annual Beardless Darnel.

TRIANDRIA Digynia.

GEN CHAR. *Cal.* of 1 valve, fixed, many-flowered. *Florets* in 2 ranks

SPEC. CHAR. Flowers almost beardless. Spikelets as long as the calyx. Florets elliptical. Stem very smooth.

SYN. Lolium arvense. *With* 168. *Sm. Fl. Brit.* 151. *Hull.* 27. *Relh.* 46.

L. temulentum. *Huds.* 55.

THIS smaller species of Annual Darnel is not, we believe, more frequent than the last, with which Linnæus confounded it. The specific character given by Mr. Hudson convinces us this was his *L. temulentum.* We have received it from Walthamstow by favour of Mr. E. Forster, who has in some spikelets observed 2, or even 3, small inner valves to its calyx. Mr. Groult found it at Kennington without any such appendages. In time of flowering and duration it agrees with the preceding, but differs in being rather smaller; in having a perfectly smooth stem and spike-stalk; in its spikelets being as long as the calyx, or very nearly so, their florets either quite beardless, or at most furnished with short, lax, very weak smooth bristles.

We learn from Mr. Relhan's new edition of the *Flora Cantabrigiensis* that this species (as well as the preceding) is found in that county. It has not yet been detected in Norfolk.

Alopecurus alpinus.

[illegible] 1803. Published by Ja.s Sowerby, London.

ALOPECURUS alpinus.

Alpine Fox-tail-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, single-flowered. *Cor.* of 1 acute, awned valve.

SPEC. CHAR. Stem erect. smooth. Spike ovate. Glumes of the calyx downy, without awns, and nearly as long as the awns of the corolla.

MR. G. DONN has favoured us with this new species of *Alopecurus*, discovered by himself on mountains about Loch Nagore in Aberdeenshire. We find no description to which it can be certainly referred, although that of Professor Vahl's *A. antarcticus*, see Wildenow *Sp. Pl. v.* 1. 357, agrees in every point except the length of the *arista*, which Vahl describes as twice the length of the calyx, whereas in our plant it is scarcely at all longer than the calyx. It is not impossible that a grass of the Straits of Magellan should grow on the mountains of Scotland. Unluckily we want a specimen to decide this point.

A. alpinus has a creeping perennial blackish root, with many long fibres. Stem about a foot high, bent at the lowest joint, then erect, simple, leafy, smooth in every part. Radical leaves narrow; those on the stem broader, short, flat, sharp-pointed, smooth, with long and slightly inflated sheaths crowned by very short stipulæ. Spike terminal, erect, ovate, blunt, scarcely an inch long, lobed or branched as in *A. pratensis* Flowers ovate. Calyx glumes united at their base, somewhat abrupt at the point, purplish, clothed with soft white hairs. Corolla of one naked glume, with an awn from its lower part, which scarcely (if at all) exceeds the calyx in length.

Phalaris utriculata of Linnæus, and *Phleum Gerardi* of Jacquin, both most unquestionably belong to this genus. The former is distinguished from the species just described by its smooth gibbous calyx, longer awns, and annual root; the latter by its long-awned calyx and more globular spike.

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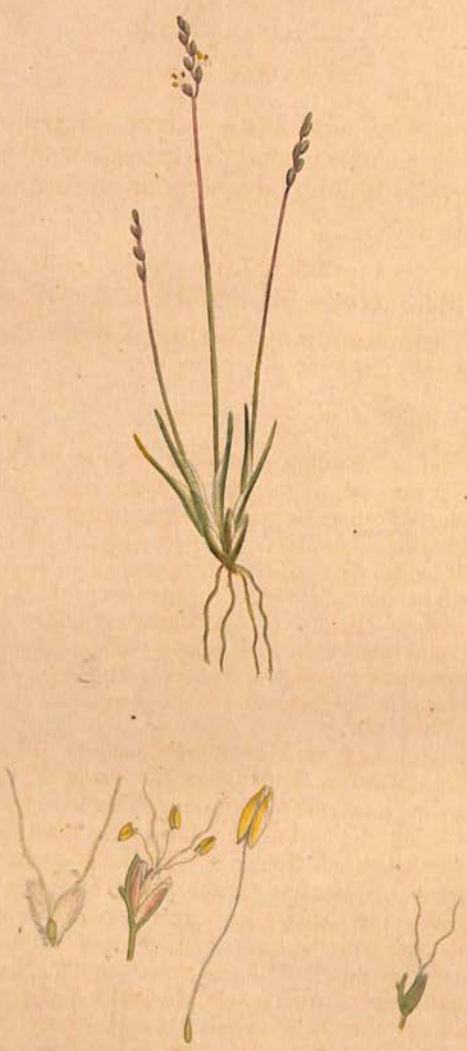

Knappia agrostidea.

Feb.ry 1 1808. Published by Ja.s Sowerby, London.

KNAPPIA agrostidea.

Early Knappia.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 obtuse valves, single-flowered, awnless. *Cor.* of 1 hairy, abrupt, awnless valve. *Flowers* alternate, on a serpentine *rachis.*

SPEC. CHAR.....

SYN. Agrostis minima. *Linn. Sp. Pl.* 93 *Sm. Fl. Brit.* 82. *Huds.* 32. *With.* 134. *H.ull.* 19.

Gramen minimum Anglo-Britannicum. *Raii Syn. Indic. Pl. Dub.*

THE elucidation of a new species of grass in the foregoing page, and of a new genus in this, will we hope justify our publishing more of one tribe in the present number than usual. Many botanists have doubted the propriety of referring the present plant to *Agrostis*, and our own suspicions respecting it have at length been confirmed by the opinion of J. L. Knapp, Esq. F.L.S. whose History of British Grasses, now preparing for the press, and illustrated with most accurate figures, drawn by himself from every species in its native situation, will abundantly justify our giving his name to the genus we have agreed with him to establish.

This curious little grass very rarely occurs. It grows in sandy maritime pastures, flowering in March and April. The Rev. Mr. Davies, to whom we are obliged for wild specimens, mentions its being frequent on the south-west coast of Anglesea. The root is annual, formed of a few long slender fibres. Herbage smooth. Stems few, from 1 to 3 inches high, simple, slender, straight. Leaves almost entirely radical, linear, channelled, blunt, enfolding the base of the stem with their membranous-edged sheaths. Spike terminal, slender, composed of 7 or 8 small flowers, alternately placed on a zigzag *rachis* or spike-stalk. Calyx of 2 equal, oblong, obtuse, smooth, purplish glumes, with green keels. Corolla of 1 thin very hairy valve, broader upwards, and very obtuse or abrupt at its summit, shorter than the calyx, embracing the germen and 3 slender stamina, and quite destitute of beard or awn. Seed elliptical.

Angelica sylvestris

Feb 21. 1803. Published by Jo.s Sowerby, London.

ANGELICA sylvestris.

Wild Angelica.

———oo———

PENTANDRIA Digynia.

GEN. CHAR. *Involucra* general and partial. *Fruit* roundish, solid, with 3 wings on each side. *Cal.* 5 teeth. *Flowers* regular. *Pet.* incurved. *Styles* reflexed.

SPEC. CHAR. Leaflets equal, ovate, serrated.

SYN. Angelica sylvestris. *Linn. Sp. Pl.* 361. *Sm. Fl. Brit.* 311. *Huds.* 118. *With.* 298. *Hull.* 62. *Relh.* 112. *Sibth.* 96. *Abbot.* 61. *Woodv. Suppl. t.* 265. *Raii Syn.* 208.

———oo———

COMMON in watery places about the banks of rivers and ditches, osier grounds, alder groves, &c. flowering in July, when its tall purplish-glaucous stem, bearing large dense umbels on its divaricated branches, is seen rising above the surrounding coarse grasses, willow-herbs and water-mints, among which the broad spreading leaves of the Angelica are no less conspicuous.

The root is perennial, large and fleshy. Stem round, smooth branched, leafy. Leaves bipinnate, rather glaucous, composed of distinct, ovate or elliptical, sharply serrated leaflets, of which the lowermost lateral ones are often lobed or auricled. Umbels of many rays, dense, hemispherical, Involucrum of 1 or 2 very narrow sharp leaves; partial involucra of many similar ones; all of them downy as well as the stalks. Flowers regular, small, white or purplish. Styles purple, short till after the flowers are faded, when they become reflexed. Fruit small, smooth. The general involucrum is often wanting.

This whole plant is aromatic, bitter and pungent; but the garden Angelica is now generally preferred for medical purposes, and always for culinary ones. Both plants are eminently stomachic and carminative.

Barbarea praecox.

Feb.ry 1 1803 Published by Ja.s Sowerby Londn

ERYSIMUM præcox.

Early Winter Cress.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* columnar, exactly square. *Cal.* closed. *Stigma* capitate.

SPEC. CHAR. Lower leaves lyrate; upper ones pinnatifid, their segments linear-oblong and entire.

SYN. Erysimum præcox. *Sm. Fl. Brit.* 707.

E. Barbarea β. *Linn. Sp. Pl.* 922?

Barbarea foliis minoribus et frequentius sinuatis. *Dill. in Raii Syn.* 297.

Early Winter Cress. *Petiv. H. Brit. t.* 46 *f.* 2.

WE are obliged to the Rev. Dr. Beeke for wild specimens of this plant, gathered on a hill half a mile north of Teignmouth, as well as near Dawlish, Kingsteignton, and Honiton, Devonshire, the soil a red brick clay. It begins to flower in May, and may be found till autumn.

The root appears to be perennial. Stem about 18 inches, in moist situations 2 feet high, erect, leafy, angular, smooth, a little branched, purplish below. Radical leaves very numerous, exactly like those of *Sisymbrium Nasturtium* lyrate, their stalk a little hairy: stem leaves oppositely, deeply and regularly pinnatifid, their lobes oblong, bluntish, entire, smooth and shining, the lowermost rounded, clasping the stem, fringed. Flowers smaller and paler than those of *E. Barbarea, t.* 443. Pods nearly thrice as long as in that species, exactly square, smooth, crowned with a very short permanent style.

There can be no doubt of this being what Petiver intended in the figure above quoted, and consequently what Dillenius has introduced into Ray's *Synopsis*. We doubt whether any following botanist has been acquainted with it till now. It is distinct enough from *E. Barbarea*. Dr. Beeke thinks it also different from the Winter Cress of the gardens called American cress, but we are at a loss for a specific difference between them.

Senecio Jacobæa.

Pub.d 1 1803 Published by Jas Sowerby London

SENECIO Jacobæa.

Common Ragwort.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* naked. *Down* simple. *Cal.* cylindrical, many-leaved, equal, scaly at the base; scales dead at the tip.

SPEC. CHAR. Radius spreading. Leaves doubly pinnatifid, somewhat lyrate, divaricated, toothed smooth. Stem erect

SYN. Senecio Jacobæa. *Linn. Sp. Pl.* 1219. *Sm. Fl. Brit.* 885. *Huds.* 365. *With.* 724. *Hull* 187. *Relh.* 328. *Sibth.* 251. *Abbot.* 182. *Mart. Rust. t.* 85.

Jacobæa vulgaris. *Raii Syn.* 177.

ABUNDANT every where in dry pastures, waste ground, and by road sides, flowering copiously in the usual hot weather of July and August, at which time it forms a contrast with the surrounding scorched and withered herbage.

Root perennial. Stem erect, furrowed, very leafy, branched in a corymbose manner. Leaves alternate, deep shining green, doubly pinnatifid, or cut into various spreading, wedge-shaped, toothed segments: the lower ones on stalks; the rest embracing the stem. Flowers very numerous, in terminal upright corymbi, of a bright golden yellow, especially their radius, which consists of a great number of linear narrow florets, at first spreading, but recurved in decay. The seeds of the disk are thickly clothed with short silky hairs, but I am obliged to Mr. Sowerby for observing that those of the radius are quite smooth. The down of all is rough, but not feathery. A cotton web, more or less dense, frequently invests the flower-stalks and calyx.

In Yorkshire this plant is sometimes called Swine's Cresses, and has been recommended in a bruised state as an application to cancers.

The leaves are devoured by the pretty black and yellow ringed caterpillars of the *Phalæna Jacobæa.*

Senecio aquaticus.

Feb.ʸ 1. 1803 Published by Jas. Sowerby, London.

SENECIO aquaticus.

Marsh Ragwort.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* naked. *Down* simple. *Cal.* cylindrical, many-leaved, equal, scaly at the base; scales dead at the tip.

SPEC. CHAR. Radius spreading; florets elliptical. Leaves lyrate, serrated; the lowermost obovate and undivided. Seeds smooth.

SYN. Senecio aquaticus. *Huds.* 366. *Sm. Fl. Brit.* 885. *With.* 725. *Hull.* 187. *Relh.* 329. *Sibth.* 254. *Abbot.* 182.

Jacobæa latifolia palustris sive aquatica. *Raii Syn.* 178.

EQUALLY common with the preceding, but in different situations; preferring moist meadows and even ditches, where it flowers from July to the end of autumn, and the root is perennial.

Linnæus considered this but as a variety of *S. Jacobæa*, and indeed its leaves are subject to so many changes of form, from ovate to deeply pinnatifid, that they sometimes approach nearlp to those of the foregoing; they are however always of a lighter colour. The flowers are fewer, larger, with the radiant florets more elliptical; sometimes indeed, when they are but few in number, very much so, and of a considerable breadth. These circumstances authorized Mr. Hudson and others to consider this as a distinct species. We are happy to have discovered an additional character in the smoothness of the seeds, in which this *Senecio* differs from every other we have been able to examine; for in this the seeds of both disk and radius are quite smooth, except a little occasional roughness on the upper part of their edges, nor have they any of those silky hairs found in other plants of this genus.

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1754.

Splachnum angustatum.

Feb.ʸ 1. 1803. Published by Ja.ˢ Sowerby London

SPLACHNUM angustatum.

Narrow-leaved Splachnum

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* cylindrical, placed on a fleshy *receptacle. Fringe* simple, of 16 teeth, standing in pairs.

SPEC. CHAR. Receptacle obovate, brownish. Leaves lanceolate, pointed, bearded; the upper ones serrated.

SYN. Splachnum angustatum. *Linn. fil. Meth. Musc.* 33. *Hedw. Sp. Musc.* 51. *Crypt. v.* 2. 37. *t.* 12. *Dicks. Crypt. fasc.* 2. 3. *With.* 729. *Hull.* 246.

WE believe the species of *Splachnum* generally grows on the dung of animals, and for the most part in mountainous situations. Mr. G. Donn gathered the present kind upon cow-dung on the side of Lachawen, Scotland, growing with *S. sphæricum*, see *vol.* II. *t.* 785.

It was originally described by Dr. Swartz in his Dissertation upon Mosses, published under the presidency of the younger Linnæus, and was first announced as a British plant by Mr. Dickson.

The stems form very dense tufts, and are from one to two or three inches high, simple or divided, leafy, thickly clothed with rusty fibres below. Leaves bright green, lanceolate, acute, tipped with a long taper point; the uppermost serrated. Fruit-stalk shorter than in any other known species, being scarcely half an inch long, yellowish-brown, straight. Receptacle obovate, brown when ripe, much shorter than the ripe capsule, and somewhat broader. Capsule brown, with a spreading mouth, surrounded with yellowish teeth. Lid convex. Veil conical, whitish.

The *Splachna* may be presumed to be annual or biennial, from the transient duration of the soil on which they grow. They generally flower early in summer, and soon bring their fruit to perfection,

Pubd. 1 Mch. 1808 by J. Sowerby London.

SPLACHNUM tenue.

Slender Splachnum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* cylindrical, placed on a fleshy *receptacle.* *Fringe* simple, of 16 teeth, standing in pairs.

SPEC. CHAR. Receptacle obconical, slender, brown. Leaves ovate, acute, serrated, beardless.

SYN. Splachnum tenue. *Dicks. Crypt. fasc.* 2. 2. *With*, 793. *Hull.* 246.

S. purpureum. *With.* 794. *t.* 18. *f.* 9. *Hull.* 246.

GATHERED last October on the very lofty mountains of Inverness-shire by Mr. G, Donn. It has olso been found by the same indefatigable and excellent observer, as well as by Mr. Dickson, upon Ben Lawers; and by Mr. Griffith in North Wales: but its original discoverer was Dr. F. Buchannan, who gathered it at his paternal seat at Leney, near Stirling, in 1782. No foreign writer seems to have known this species, but Mr. D. Turner is possessed of specimens lately gathered at the Hartz by Mr. Mohr. Can it be *S. Serratum of Hedw. Sp. Musc.* 53. *t.* 8?

The stems are generally very short, forming tufts. Leaves ovate, or rather obovate, acute, not bearded, flat, finely serrated, evidently and beautifully reticulated, of a fine green, turning red in decay. Stalk an inch and half or two inches high, of a beautiful red in the lower part, pale or yellowish at the top, but as it grows old the whole becomes of a dark red. Receptacle slender, though rather long, inversely conical, green when young, dark red or brown when ripe, not thicker than the capsule, but in a dried state even more slender. Capsule dark-brown. Lid convex, brown. Veil conical, blunt, tipped with brown.

This species occurs twice in Dr. Withering's work, having been in one instance described from Mr. Griffith's specimens, and in the other adopted from Mr. Dickson.

Grimmia apocarpa.

Feb.ry 1.1803 Published by Jn.o Sowerby. Lond.n

GRIMMIA apocarpa.

Sessile Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of 16 teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

SPEC. CHAR. Leaves ovate, pointed: the uppermost bearded. Capsule ovate, sessile. Stem much branched.

SYN. Grimmia apocarpa. *Hedw. Sp. Musc.* 76. *Crypt. v.* 1. 104. *t.* 39. *Sibth.* 276.

Bryum apocarpum. *Linn. Sp. Pl.* 1579, *a. Huds.* 474, *β. With.* 809, *var.* 1. *Relh.* 424. *Abbot.* 236.

Fontinalis apocarpa. *Hull.* 274.

Sphagnum cauliferum et ramosum saxatile hirsutum virescens, capitulis obscurè rubris. *Raii Syn.* 104.

S. subhirsutum obscurè virens, capsulis rubellis. *Dill. Musc.* 245. *t.* 32. *f.* 4.

NOT rare upon stones and the trunks of trees. The bright red lids of its capsules render it conspicuous in the spring months.

The stems form loose tufts of various sizes, and are branched and spreading, thickly clothed with imbricated, ovate, keeled, entire, acute leaves, often tipped with a white pellucid bristly point; indeed those which surround the fruit have always this appendage. The capsules stand solitary and sessile at the end of each branch, and are ovate or somewhat cylindrical, short, reddish-brown, smooth (not furrowed), crowned with a bright red lid, whose beak varies in length and thickness, but is generally nearly straight, and always much shorter than the capsule itself. Fringe of 16 red, entire, spreading teeth, broad at the base, tapering to a fine point. Veil remarkably small, not exceeding the lid in dimensions.

The variety *β* of Linnæus, which Mr. Hudson has unaccountably chosen to make the original species, is a totally different plant, and even genus, the *Gymnostomum ciliatum* of late writers.

March 1 1803 Published by Jas Sowerby London

GRIMMIA conostoma.

Cone-mouthed Grimmia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Fringe* simple, of sixteen teeth, broadest at their base. *Flowers* terminal. *Veil* cylindrical.

SPEC. CHAR. Leaves lanceolate, finely serrated, bearded, imbricated in five rows. Capsule roundish. Fringe cohering at the point.

SYN. Bryum tetragonum. *Dicks. Crypt. fasc.* 2. 8. *t.* 4 *f.* 9. *With.* 835. *Hull.* 264.
Conostomum arcticum. *Swartz* MSS.

MR. DICKSON first observed this Moss upon Ben Lomond. Mr. G. Donn has also found it on some other Scottish mountains, as Ben Lawers, Loch-ne-gare, and the Corum-gorum hills of Inverness-shire. It is perennial, bearing its fruit in July and August.

The stems are branched, an inch or two in height, and form dense even-topped tufts. The leaves are lanceolate, keeled, minutely serrated, tipped with a small point, closely imbricated in five rows. Stalk an inch high, reddish, not quite straight. Capsule a little drooping, and somewhat oblique, roundish, at length furrowed, of a yellowish brown. Fringe red, of sixteen simple taper teeth, cohering at their points. Lid conical, curved, half as long as the capsule. The veil we have not seen.

We are obliged to Mr. Donn for remarking that the slender shoots represented in Mr. Dickson's plate, are probably the effects of damp package, they not being found in the plant in its native situation. Dr. Swartz, who has sent us Lapland specimens, rightly observes that the shoots have five (not merely four) angles. Hence, being obliged to change the specific name, we have adopted one expressive of the conical united fringe, a circumstance to remarkable that Dr. Swartz thinks it enough to constitute a generic character. We acknowledge the habit greatly strengthens his opinion.

Lecidea Ehrhartiana?

March 1 1811 Published by Jas Sowerby London

LICHEN Ehrhartianus.

Ehrhartian Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust rugged, granulated, greenish-white, studded with black warts. Shields bordered, yellowish; at length convex, waved, deformed and clustered.

SYN. Lichen Ehrhartianus. *Achar. Prod.* 39. *t.* 2. *f.* 1. *Dicks. Crypt. fasc.* 4. 22.

DISCOVERED by Mr. D. Turner at Acle, Norfolk, between the town and the wood, growing in the greatest profusion upon a barn door. Although not very conspicuous to a superficial observer, it proves very distinct when examined, and there is none with which it can be confounded.

The crust covers the wood in broad, level, cracked and granulated patches, and is about a line in thickness, tartareous, greenish-white, not mealy, but composed of uniform, smooth roundish little knobs or granulations, many of which bear each a little black wart. These warts might be taken for seed-bearing tubercles, did we not observe also real shields, various in size and figure, of a buff-colour, at first surrounded with a zigzag white narrow border; afterwards convex, variously waved and wrinkled, the border being obliterated.

Dr. Acharius suspects the *L. graniformis* of Hagen may be only the beginning of this species.

Lecidea epipolea

March 1. 1803. Published by Jas. Sowerby, London.

LICHEN epipolius.

Silver-grey Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust white, tessellated as if somewhat imbricated. Shields uniform, round, convex, blackish, clothed with fine grey mealiness, and bordered with white.

SYN. Lichen epipolius. *Achar. Prod.* 58.

OBSERVED by Mr. Turner growing on calcareous stones in several old buildings in Norfolk and Suffolk. This specimen came from the church of Market Dereham. We know of no other botanist who has found this Lichen in Britain, nor has it been noticed by any writer except Dr. Acharius. Although fine specimens of it are not always to be found, and therefore it may be overlooked, it is a perfectly distinct species.

The crust, when not impeded, spreads circularly, and is of a fine tartareous texture though thin, pure white within, externally when moist faintly tinged with grey; it is finely cracked or tessellated, and towards the margin a little lobed, but scarcely imbricated or rugose. Shields numerous, sessile, small, uniform, exactly round, convex, clothed with a silvery-grey mealiness, which is with difficulty rubbed off, and leaves the shield almost black. When young each shield has a narrow white border.

March 1 1803 Published by Jas Sowerby London

LICHEN candidus.

White Tumid Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust white, lobed and swollen, minutely cracked and powdery. Shields black, convex, irregular, in the clefts of the crust.

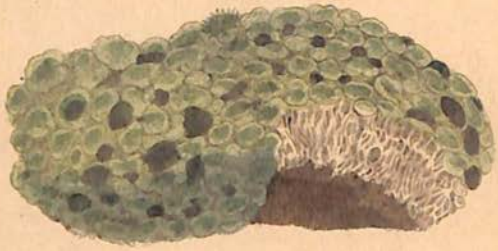
SYN. Lichen candidus. *Weber. Goett.* 193. *Ehrh. Crypt* 49.

L. tumidulus. *Sm. Trans. of Linn. Soc. v.* 1. 82. *t.* 4. *f.* 3.

Patellaria candida. *Hoffm. Pl. Lich. t.* 33. *f.* 2.

FOR this Lichen, not before detected in Britain, we are also obliged to Mr. Turner, who found it on the ruined walls of Trigby church near Yarmouth. It is preserved in the late Mr. Bryant's herbarium, now in the possession of Miss Hancock of Norwich, by the name of *atro-albus*, with the Linnean definition of which it somewhat agrees. Having met with this species in the South of France, and conceiving it to be nondescript, I called it *tumidulus*, a name perhaps more expressive than that of Weber, but his has a prior right. Surely Dr. Acharius is much mistaken in considering it a variety or early state of *cæruleo-nigricans*!

The crust is tartareous, swelling out into remarkably thick prominent lobes, clothed with fine white meal, which when rubbed off leaves the crust brownish or grey, and minutely cracked. Within it is however pure white. The shields stand in the interstices of the crust, sessile, various in size and figure, at length convex, sinuated and lobed, coal-black with a narrow edge of the same colour. In a young state they are clothed with blue mealiness.



Psora caerulco-nigricans.

March 1, 1805 Published by J. Sowerby, London.

LICHEN cæruleo-nigricans.

Black and Blue Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust of irregular, imbricated, tumid, powdery, greyish leaves. Shields black, irregular, flattish, in the interstices of the leaves, with a thick palish border.

SYN. Lichen cæruleo-nigricans. *Lightf.* 805. *Huds.* 652. *With. v.* 4. 10. *Hull.* 286. *Abbot.* 259. *Dicks. H. Sicc. fasc.* 8. 24.

L. vesicularis. *Achar. Prod.* 94. *Relh.* 458.

L. paradoxus. *Ehrh. Crypt.* 206.

Patellaria vesicularis. *Hoffm. Pl. Lich. t.* 32. *f.* 3.

IN the last page we mentioned the opinion of Dr. Acharius that this and *L. candidus* are not distinct species. With all due deference to such authority, we cannot but conceive them different. *L. cæruleo-nigricans* grows on the ground, not on stones, and consists of long branched tufted spongy roots, bearing tumid roundish clustered leaves, greenish when wet, grey or brown when dry, covered with fine mealy powder. We do not find that they turn black when old. Black shields grow among them, greyish when young, and surrounded with a thick paler border, which disappears as they advance in age, and they then become various in size and form, often tumid, but more generally flat. Such are the characters of this plant as we have found them in Cambridgeshire specimens sent by the Rev. Mr. Hemsted, as well as in others from the north; yet so various are the accounts and sentiments of authors about it that we offer ours with great diffidence. We retain Lightfoot's specific name as original and indisputable, though he has misquoted Dillenius. Surely Mr. Bolton's *Sphæria glauca* cannot be the same with what we have here described.

Professor Hoffmann has figured and illustrated these two Lichens in the most admirable manner.

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March 1 1803 Published by Ja.s Sowerby, London

POA maritima.

Creeping Sea Meadow-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the base. *Cor.* of 2 ovate, pointed, beardless valves.

SPEC. CHAR. Panicle branched, rather close. Spikelets of five bluntish, cylindrical, slightly five-ribbed florets. Root creeping.

SYN. Poa maritima. *Huds.* 42. *Sm. Fl. Brit.* 97. *With.* 147. *Hull.* 22. *Lightf.* 98. *Relh.* 32. *Dicks. H. Sicc. fasc.* 11. 2.

Gramen paniculatum maritimum vulgatissimum. *Raii Syn.* 409.

GATHERED by Mr. Groult at Southampton, September 15 last. It is not unfrequent in marshy places on the sea-coast, flowering from July to October, and is perennial.

The root creeps, by which this differs from *P. distans*, *v.* 14. t. 986, which is moreover less strictly a maritime plant. The stems are very smooth and polished, decumbent at their base. Whole plant glaucous, often tinged in the florets and panicle with purple. Leaves involute, pungent. Stipula mostly blunt. Branches of the panicle rough, straight, spreading whilst in flower, then erect, rarely divaricated. Spikelets linear, longer and larger than in *P. distans*, of about five florets, which are almost imperceptibly five-ribbed, blunt but not retuse, unconnected by any web.

It is a hard scattered grass, not likely to answer any agricultural purposes.

Mark's Nov. Published by J. Lowerby, London.

POA annua.

Annual Meadow-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the base. *Cor.* of 2 ovate, pointed, beardless valves.

SPEC. CHAR. Panicle divaricated. Spikelets ovate. Florets a little remote, five-ribbed, destitute of a web. Stem oblique, compressed.

SYN. Poa annua. *Linn. Sp. Pl.* 99. *Sm. Fl. Brit.* 105. *Huds.* 42. *With.* 143. *Hull.* 22. *Relh.* 34. *Sibth.* 42. *Abbot.* 18. *Curt. Lond. fasc.* 1. *t.* 6. *Mart. Rust. t.* 98. *Stillingfl. t.* 7.

Gramen pratense minus, seu vulgatissimum. *Raii Syn.* 408.

EVERYWHERE in meadows and pastures, and flowering almost throughout the year when the weather is mild. The root is strictly annual, though the stems throw out fibres from their lower parts, and seem to creep. Herbage bright green, not glaucous. Stems several, obliquely spreading, compressed, leafy, smooth. Leaves linear, flaccid, bluntish, smooth, with a little roughness at the edges, flat, except a waved or crumpled appearance here and there, very characteristic of the species, though not absolutely peculiar to it. Sheaths long, compressed, smooth, crowned by a sharp stipula. Panicle erect, smooth, its branches in pairs, rather directed towards one side. Spikelets ovate, variegated with green and white, smooth and polished. Calyx acute. Florets about 5, not crowded, ovate, obtuse, 5-ribbed, membranous at the edge, a little silky at the back, destitute of a web at their base.

This grass is noted for its great increase, and the facility with which it occupies almost any situation. It affords excellent food for cattle, plentiful in proportion to the richness of the soil, and is not damaged, but rather improved, by being trodden.

March 1 1805 Published by Jas Sowerby London

BETONICA officinalis.

Wood Betony.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* ascending, flattish; lower 3-cleft: tube cylindrical.

SPEC. CHAR. Spike interrupted. Middle segment of the lower lip notched.

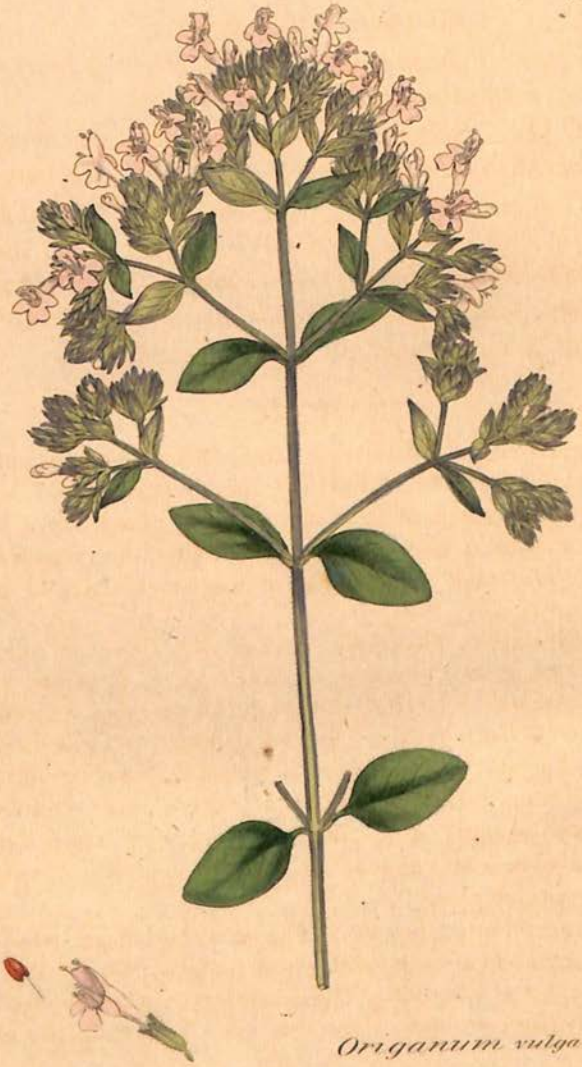
SYN. Betonica officinalis. *Linn. Sp. Pl.* 810. *Sm. Fl. Brit.* 632. *Huds.* 258. *With.* 530. *Hull.* 131. *Relh.* 233. *Sibth.* 185. *Abbot.* 130. *Curt. Lond. fasc.* 3. *t.* 33. *Woodv. Suppl. t.* 241.

Betonica. *Raii Syn.* 238.

NOT rare in woods and thickets, where it flowers in July and August.

Root perennial, somewhat woody. Whole herb rough with rigid hairs, to which, as is well observed in the Dispensatory, the power of the dried plant to procure sneezing is owing, and not to any internal quality. The stem is simple, square, almost leafless. Radical leaves on long stalks, ovate, serrated; the uppermost oblong, opposite, nearly sessile. Spike terminal, obtuse, formed of several whorls, the lowermost generally remote from the rest, and accompanied by a pair of leaf-like bracteæ. Small entire bracteæ also accompany each flower. Corolla of a dull rose-colour, downy, occasionally pale or white; its lower lip generally cloven, sometimes only crenate.

Great virtues formerly attributed to the Betony are now disbelieved, and it is never used by our physicians. The herbage is said to be mildly astringent, and the root emetic and purgative. The smell is faintly aromatic.



Origanum vulgare.

ORIGANUM vulgare.

Common Marjoram.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Calyces* collected, by imbricated *bracteæ*, into a spicate, quadrangular *cone*.

SPEC. CHAR. Spikes roundish, panicled, clustered, smooth. Bracteæ ovate, longer than each calyx.

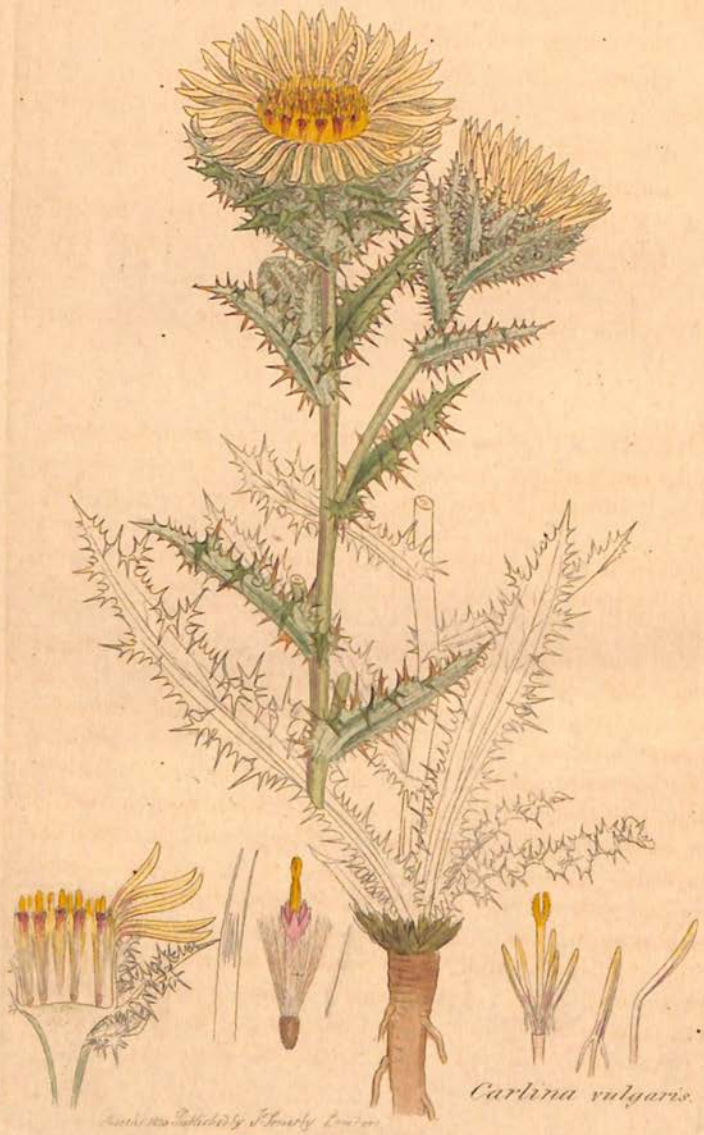
SYN. Origanum vulgare. *Linn. Sp. Pl.* 824. *Sm. Fl. Brit.* 639. *Huds.* 262. *With.* 535. *Hull.* 134. *Relh.* 237. *Sibth.* 188. *Abbot.* 132. *Curt. Lond. fasc.* 5. *t.* 39. *Woodv. Med. Bot. t.* 164.

O. vulgare spontaneum. *Raii Syn.* 236.

AS a grateful and stimulating aromatic this plant is infinitely more worthy of notice than the preceding, and accordingly is retained, at least among rural practitioners, as well as for culinary uses, though for the latter the more fragrant *O. Majorana* is preferred in the neighbourhood of London.

O. vulgare grows plentifully on chalky or limestone soils, sometimes on gravel, in bushy or woody places, flowering in July and August. The roots are perennial, creeping. Stems square, hairy, leafy, purple. Leaves opposite, ovate, entire, dotted with glandular spots. Spikes numerous, in a terminal cluster or head, each consisting of numerous rose-coloured flowers, with smooth entire purple bracteæ, with which last colour the calyx is also tinged. It cannot be confounded with any other British plant.

Bees are fond of the flowers. The whole herb has a strong fragrant thyme-like smell, and warm pungent taste. Our specimen grew at Charlton. The general colours and appearance of the plant are most elegant in open places and on a chalk soil.



Carlina vulgaris.

Smith & Sowerby delt. et pinx.

CARLINA vulgaris.

Common Carline.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* swelling: the outer scales spinous; the inner coloured, scariose, radiant. *Recept.* chaffy. *Down* feathery.

SPEC. CHAR. Stem many-flowered, corymbose. Flowers terminal. Outer scales of the calyx pinnatifid; inner whitish.

SYN. Carlina vulgaris, *Linn Sp. Pl.* 1161. *Sm. Fl. Brit.* 857. *Huds.* 355. *With.* 704. *Hull.* 178. *Relh.* 319. *Sibth.* 247. *Abbot.* 177.

C. sylvestris quibusdam, aliis Atractylis. *Raii Syn.* 175.

FREQUENTLY to be met with scattered over dry sandy heaths and pastures, among Ling and other humble shrubs, where it flowers in June and July, after which, being biennial, it dies, but does not immediately decay, for the leaves and even flowers, which are of the nature of a *Gnaphalium* or *Xeranthemum*, battered and bleached, stand many a wintry storm.

The root is spindle-shaped. Whole plant rigid. Stem a foot high, leafy, furrowed, more or less woolly. Leaves alternate, sinuated, very spinous, veiny, most woolly beneath. Flowers terminal, erect. Outer calyx-leaves very spinous; the inner ones longer, linear, smooth, radiating, yellowish-white, polished, everlasting, resembling the rays of flowers in the order *Polygamia-superflua*. Florets uniform, tubular, purplish. Antheræ with 2 bristles at their base. Seed crowned with feathery down. Scales of the receptacle much resembling the inner scales of the calyx.

The Carline Thistle, formerly used in medicine, is not this, but *Carlina acaulis* of Linnæus. It was reported to have been pointed out by an angel to Charlemagne, to cure his army of the plague. His name is the origin of the generic one.

Salix rubra.

March 1 1803 Published by Jas Sowerby, Lond.n.

SALIX rubra.

Green Osier.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Monadelphous? Leaves linear-lanceolate, elongated, acute, minutely toothed, smooth; green on both sides.

SYN. Salix rubra. *Huds.* 428. *With.* 49. *Hull.* 218. *Relh.* 386. *Tr. of Linn. Soc. v.* 6. 116.
S. minimè fragilis, foliis longissimis utrinque viridibus non serratis. *Raii Syn.* 449.

GATHERED by the Rev. Mr. Hemsted between Prickwillow and Ely, also at Icklingham, Suffolk. It is a slender tree, of moderate height, when not cut down as an Osier, flowering in April or early in May. The branches are long, slender, tough and pliant, smooth, of a greyish or purplish hue. Leaves alternate, on short slender footstalks, linear-lanceolate, acute, flat, 3 or 4 inches long, very minutely toothed or serrated, grass green, and smooth, on both sides, the young ones only being downy as in most species. The stipulæ but very rarely occur; they are linear-lanceolate and toothed. Female catkins not an inch long, obtuse; their scales elliptical, hairy, purple. Germen ovate, acute, sessile, silky, with a very short style, and ovate thick stigmas. Nectary a yellow, cylindrical, abrupt gland at the base of the germen. The male plant we have never seen, but from analogy the stamina are presumed to be monadelphous; and we think it most useful in this obscure genus to publish but one sex (as the leaves and habit never differ), rather than wait in the vain hope of obtaining both sexes of every species, which can only be the result of many years' laborious search.

S. rubra is among the most valuable Osiers, though little known as yet to botanists. Ehrhart gives it in his dried plants as *S. fissa* of Hoffman; to which we cannot assent.

1374.

Salix Croweana.

March 1. 1803 Published by Jas. Sowerby London

SALIX Croweana.

Broad-leaved Monadelphous Willow.

DIŒCIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary*, a gland at the base of the stamina. *Stam.* 1—5. Female *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Monadelphous. Leaves elliptical, slightly serrated, quite smooth; glaucous beneath.

SYN. Salix Croweana. *Tr. of Linn. Soc. v.* 6. 117.

AS far as we have been able to ascertain, this is a perfectly nondescript species of Willow, the only one with tunied stamina and broad leaves, to which we have given the name of its discoverer, James Crowe, Esq., F.L.S., who has observed it in several parts of Norfolk, flowering in April or May. It forms a small irregularly growing tree, with short, brittle, yellow or purplish, divaricated branches. Leaves alternate, on broad stalks, spreading, hardly an inch and a half long, elliptical or somewhat obovate, acute edged with numerous though slight serratures; smooth on both sides; bright shining green above; glaucous and veiny beneath; their points in maturity reflexed and often split. Male catkins ovate, short, and of a bright yellow when young. Scales obovate, hairy, tipped with black. Filaments more or less united at their base. Antheræ orange-coloured. The female catkins have never been met with, but they are not wanted to discriminate this very distinct species.

This Salix is of no use as an Osier, nor have we seen it any where cultivated. When in blossom it is one of the most ornamental, and the leaves are not destitute of beauty.

1147

1344

Apl 1 1803 Publyhed by Jas Sowerby London

SALIX petiolaris.

Dark long-leaved Willow.

DIOECIA Diandria.

GEN. CHAR. Male, *Cal.* the scales of a catkin. *Cor.* none. *Nectary* a gland at the base of the stamina. *Stam.* 1—5. Female, *Cal.* and *Nect.* like the male. *Cor.* none. *Stigmas* 2. *Caps.* superior, of 1 cell and 2 valves. *Seeds* downy.

SPEC. CHAR. Leaves lanceolate, serrated, smooth; glaucous beneath. Germen stalked, ovate, silky. Stigmas sessile, cloven.

SYN. Salix petiolaris. *Tr. of Linn. Soc. v.* 6. 122.

FOR this new species of *Salix* we are obliged to Mr. Dickson, who found it in some part of Great Britain, the exact place is not remembered, and sent it in a growing state to Mr. Crowe. We only know the female, which is a small spreading tree, flowering in April. The branches are slender, flexible, round, smooth, more or less purple or brown. Leaves 4 or 5 inches long, and almost an inch broad when full-grown, lanceolate, pointed, serrated throughout, generally unequal at their base; bright-green and smooth above; glaucous and often a little hairy beneath; in drying they turn almost black. Footstalks remarkably long and slender. Stipulæ small, lunate, smooth, toothed. Female catkins scarcely an inch long, on stalks. Scales small, obtuse, often notched, black and hairy. Germen on a long stalk, ovate, silky, with two sessile, ovate, blunt, cloven stigmas. The very young leaves are tinged with an elegant ferruginous hue, especially in the radical shoots which spring up when a tree is cut down. Such shoots in some species differ greatly from the general appearance of the plant, and require in this genus to be particularly attended to. The stigmas and germen are also of great moment in discriminating many species.

1148.

1454.

Lycopodium selaginoides.

Apr.ˡ 1 1805. Published by Jas Sowerby London.

LYCOPODIUM Selaginoides.

Prickly Club-Moss.

CRYPTOGAMIA Filices, exannulatæ.

GEN. CHAR. *Capsules* axillary, solitary, of 2 valves, naked, somewhat kidney-shaped, compressed.

SPEC. CHAR. Leaves scattered, ciliated, lanceolate; the floral ones larger and more spreading.

SYN. Lycopodium Selaginoides. *Linn. Sp. Pl.* 1565. *Huds.* 463. *With.* 757. *Hull.* 236. *Dicks. Dr. Pl.* 90. *H. Sicc. fasc.* 7. 19.

Selaginoides foliis spinosis. *Raii Syn.* 106. *Dill. Musc.* 460. *t.* 68.

BLACK boggy spots watered with small alpine rills, in the most mountainous parts of Great Britain, produce this rare species of Club-moss, which ripens its fruit in August and September. We have gathered it on the tops of hills in Westmoreland and Scotland, and have received it from near Middleton in Teesdale, by favour of the Rev. Mr. Harriman, Mr. Oliver and Mr. Robson.

The roots are small, fibrous and perennial. Stems much branched, spreading, weak and slender below; the branches erect, leafy, cylindrical, obtuse; those which bear fructification longer and stouter than the others. Leaves of a bright grass green, shining, imbricated, lanceolate, fringed with minute teeth: those in whose bosoms the fruit is lodged are larger, yellowish, and more spreading. The capsules differ a little from the rest of the genus, being rounder, and containing each four round white large seeds, to whose shape as they stand, one on the other three, the valves of the capsule exactly conform. In the upper part of each spike Mr. Sowerby has found kidney-shaped capsules full of fine dust, like the fruit of the other species, which might be taken for antheræ, were it not contrary to all analogy in this tribe. We rather suppose them to be young or abortive fruit.

Polypodium vulgare.

Apl. 1 1803. Published by Jas. Sowerby London.

POLYPODIUM vulgare.

Common Polypody.

CRYPTOGAMIA Filices, annulatæ.

GEN. CHAR. *Fructifications* scattered in roundish dots, not marginal. *Involucrum* none.

SPEC. CHAR. Frond pinnatifid: lobes oblong, somewhat serrated, obtuse. *Root* scaly.

SYN. Polypodium vulgare. *Linn. Sp. Pl.* 1544. *Huds.* 455. *With.* 773. *Hull.* 236. *Relh.* 409. *Sibth.* 269. *Abbot.* 226. *Curt. Lond. fasc.* 1. *t.* 68. *Woodv. Suppl. t.* 271. *Bolt. Fil.* 32. *t.* 18.

Polypodium. *Raii Syn.* 117.

VERY frequent on the tops of walls, old thatched roofs, shady banks, and the mossy trunks of rotten trees. The fructification is plentiful from the beginning of summer till the plants are destroyed in the course of the winter.

Root perennial, creeping, twisted, thickly clothed with lanceolate brown shining scales; its fibres woolly, of a shining brown. Fronds from 6 to 12 inches high, erect, stalked, lanceolate, acute, deeply pinnatifid, smooth; the lobes linear-oblong, bluntish, sometimes entire, but most generally crenate or serrated, rarely lobed. Spots arranged in a simple series on each side the rib of each lobe, at nearly an equal distance between that and the edge, round, of a yellow brown, convex, larger than in most ferns, perfectly naked or destitute of an involucrum. Every spot consists of numerous stalked round pale capsules, each encompassed with a brownish jointed ring. Tournefort most unaccountably denies the existence of this ring; and Adanson, though a professed reformer, follows him.

We now agree with Dr. Swartz in separating from this real genus of *Polypodium* such species as have an involucrum, by the name of *Aspidium*. Of the ferns already figured in this work, *t.* 1018 and 1019 belong to the latter genus, and *t.* 616 to the former.

The medical virtues of the Common Polypody are not enough to make it worth inquiring whether that of the oak, or that of any wall or cottage, be most endowed with them.

P. cambricum is a barren laciniated variety of this.

1440.

Scolopendrium vulgare.

Ap.1 1803. Published by Jn.o Sowerby, London.

SCOLOPENDRIUM vulgare.

Common Hart's-tongue.

CRYPTOGAMIA Filices, annulatæ.

GEN. CHAR. *Fructif.* in scattered double lines, between veins. *Involucrum* superficial, folding lengthwise over one another, separating by a longitudinal suture.

SPEC. CHAR. Frond undivided, tongue-shaped; cordate at the base; smooth beneath.

SYN. Scolopendrium vulgare. *Sym. Syn.* 193.
Asplenium Scolopendrium. *Linn. Sp. Pl.* 1537. *Huds.* 452. *With.* 766. *Hull.* 241. *Relh.* 408. *Sibth.* 268. *Abbot.* 225. *Bolt. Fil.* 18. *t.* 11. *Curt. Lond. fasc.* 1. *t.* 67. *Woodv. Suppl. t.* 272.
Phyllitis. *Raii Syn.* 116.

COMMON about moist shady rocks, deserted mines, the insides of wells, and other damp hollow places. The fructification is most perfect for examination about July.

Root perennial, tufted. Fronds many, a foot or 18 inches high, erect, of a full grass green, stalked, lanceolate, acute, entire, waved, smooth except the stalk and back rib, which are scaly; heart-shaped at the base; sometimes accidentally cloven, or even branched, at the summit. Lines of fructification oblong, of various lengths, placed between two parallel veins, and consisting in fact of two lines of brown capsules, each accompanied by its own linear membranous involucrum; and as the lines are so close together, one involucrum folds over the other, till separated by the ripening fruit. Each capsule stands on a stalk, and is invested with a ring. The involucrum at length becomes reflexed, and is overgrown and concealed by the ripening capsules.

Although this fern, like that in our last plate, is to be found on the list of medicinal plants, its virtues are little regarded. Its juices are mucilaginous, partaking of some acrimony, and the smell of the plant is peculiarly unpleasant.

DICRANUM crispum.

Curled Fork-Moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 16 flat, cloven teeth, a little inflexed.

SPEC. CHAR. Stem simple. Leaves capillary, lax, nerveless; dilated at the base. Capsule ovate, furrowed, erect.

SYN. Dicranum crispum. *Hedw. Sp. Musc.* 132. *Crypt. v.* 2. 91. *t.* 33. *Swartz. Musc. Suec.* 37. Bryum vaginale. *Dicks. Crypt. fasc.* 3. 8. *With.* 827. *Hull.* 261.

THIS moss was discovered by Mr. Dickson in marshy places in Scotland. Our specimens were gathered by John Templeton, Esq., of Orange Grove near Belfast, on moist banks in the Manyburn River, Ireland, in July 1802.

Roots perennial. Stems growing in patches, erect, simple, leafy, scarcely a quarter of an inch high. Leaves light-green, spreading almost equally every way, lax and pliant, more or less undulated and curled, capillary, acute, sheathing the stem with their dilated base, destitute of rib or veins. Stalk terminal, capillary, red, twisted at the top, scarcely an inch high. Capsule nearly erect, ovate, short, of a red brown, but little contracted at the mouth, becoming somewhat spirally furrowed as it ripens. Lid with a long, slender, oblique, red point. Fringe red, of sixteen cloven flat teeth, the decisive character of the genus, of which the moss figured in our *t.* 354 (*Bryum scoparium*) is another species.

Sept.r 1. 1803. Published by Jas. Sowerby, London

TRICHOSTOMUM capillaceum.

Fine-leaved Fringe-Moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* oblong. *Fringe* of 32 capillary, straightish teeth, approximated or united in pairs.

SPEC. CHAR. Leaves in two rows, spreading, capillary, with a dilated sheathing carinated base. Capsule erect. Lid conical.

SYN. Cynontodium capillaceum. *Hedw. Sp. Musc.* 57.
Swartzia capillacea. *Hedw. Crypt. v.* 2. 72. *t.* 26.
Bryum capillaceum. *Dicks. Crypt. fasc.* 1. 4. *t.* 1. *f.* 6. *With.* 831. *Hull.* 262.
B. æstivum. *Huds.* 485.

NOT uncommon in bogs upon mountains in Scotland, Wales, and the north of England. We have gathered it on the Pentland hills near Edinburgh, and have received fine specimens from Mr. Griffith, Mr. G Donn, and Mr. Mackay. The synonym of Hudson stands on the indisputable authority of the Rev. H. Davies; but the *B. æstivum* of Linnæus and Dillenius is a widely different plant.

The stems form extensive tufts, and are very slender, simple, from 2 to 4 or 5 inches high, leafy above, clothed with dark-brown fibres below. Leaves spreading in two ranks, of a fine green, long, capillary, acute, sheathing the stem with their dilated base, through which runs a strong central rib. Stalk terminal, upright, very slender, about an inch long, red and shining, at length a little zigzag. Capsule erect, small, cylindrical, thin, pale shining brown, with a darker edge. Fringe of 32 very slender hair-like teeth, approaching each other in pairs. Lid conical, short, reddish. Veil slender.

This moss is perennial, and ripens its capsules in April and May.

We include under *Trichostomum* all mosses that have a fringe of 32 teeth, whether united at the base in pairs, or simply approximated. Such as have only 16 teeth go much more conveniently to the genus *Grimmia*.

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